DRUG & COSMETIC INDUSTRY

NOVEMBER, 1951

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FRANCIS CHILSON, Production Consultant
MILTON A. LESSER, Technical Editor
HARRY G. KELBLY, Raw Material Editor
FRANK CHILD III, News Editor
MAX FRANKEL, Art Director

The Drug and Cosmetic Industry is published monthly by Drug Markets, Inc., Frazer V. Sinclair, President and Treasurer, Thomas R. Farrell, Vice-president and Secretary. Publication Address, 28 Renne Ave., Pittsfield, Mass., U. S. A. Editorial and General Office, 101 West 31st St., New York 1, N. Y., U. S. A.

Business Manager, Frazer V. Sinclair; Advertising Manager, P. W. Alexander; Advertising Representatives, Walter M. Brauneiss, C. R. Keeley. Production Manager, Katherine Hyde; Circulation Manager, Harry G. Kelbly.

Chicago Advertising Representative: Dwight H. Early, 100 No. LaSalle St., Chicago 2; Telephone, CEntral 6-2184

Subscription price — $3.00 a year, in advance, Foreign Countries, $5.00. Single copies, 35c; Back issues, 50c. Entered as Second Class Matter, January 1, 1928, at the Post Office at Pittsfield, Mass., under the Act of March 3, 1879. Member of Audit Bureau of Circulations.

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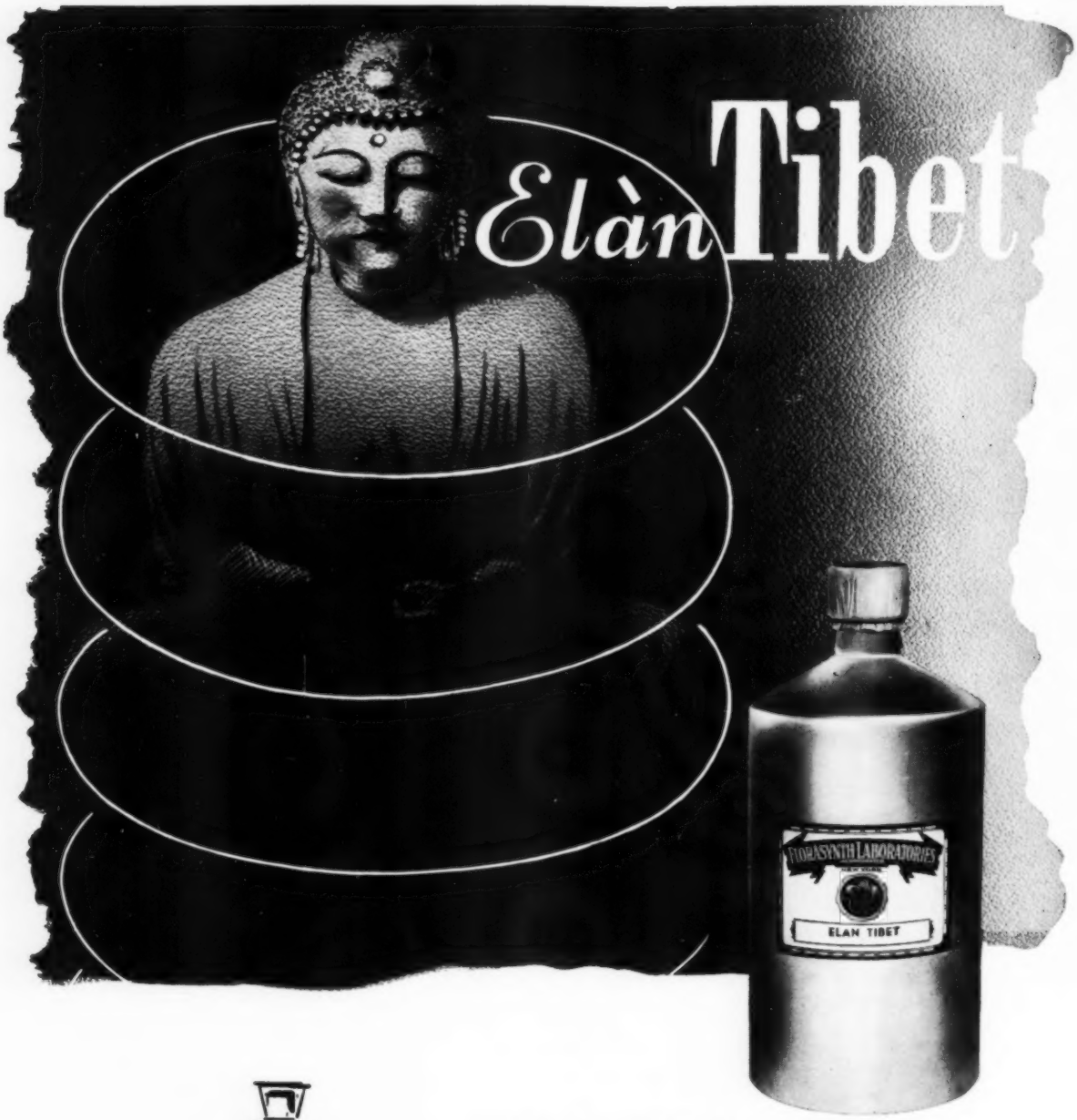

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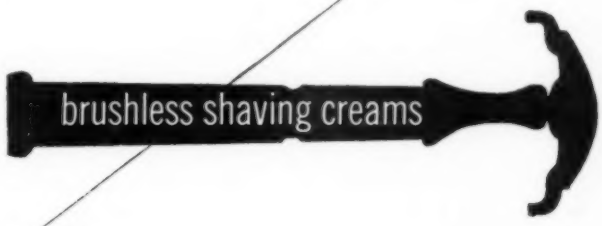

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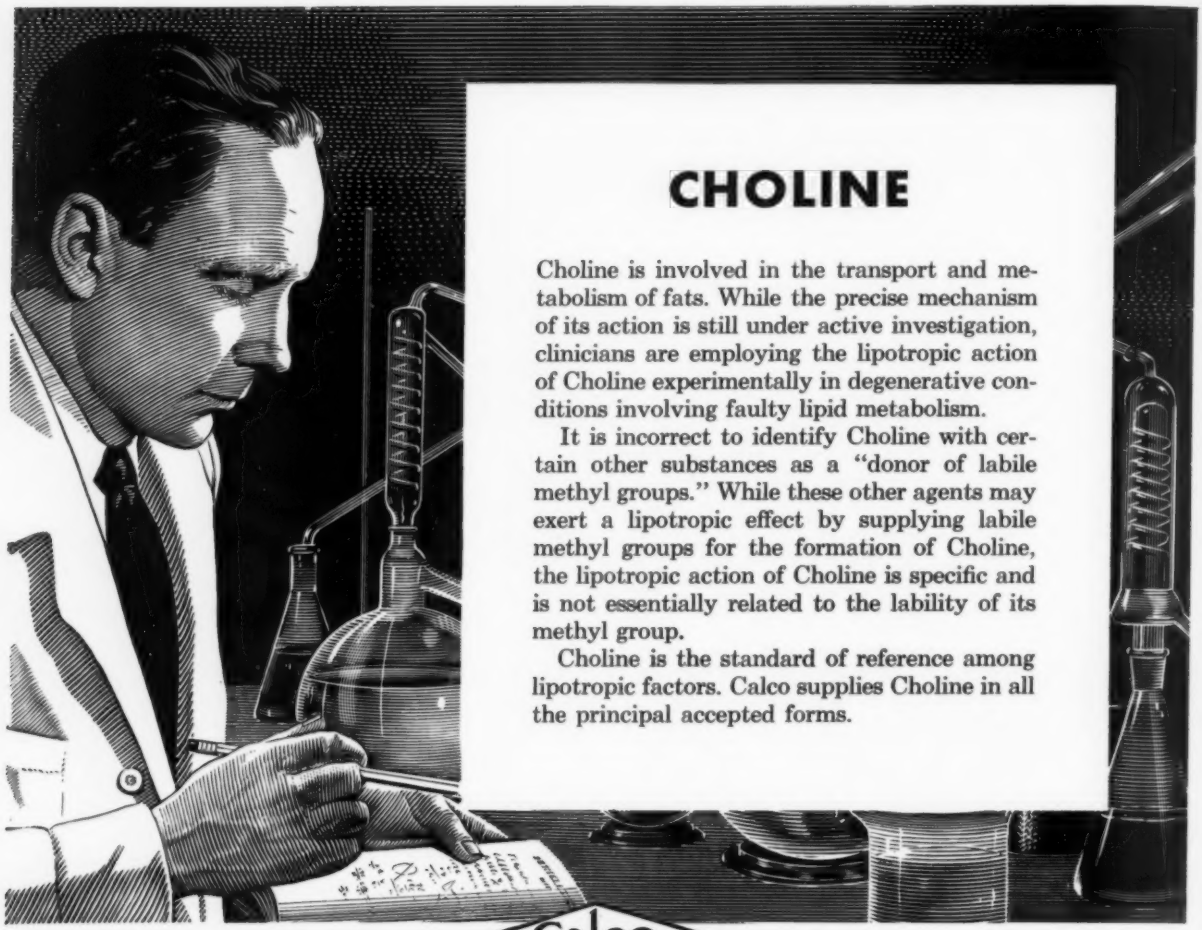

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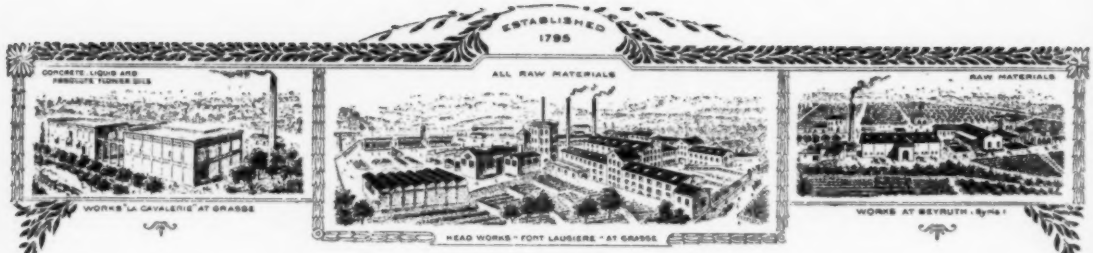

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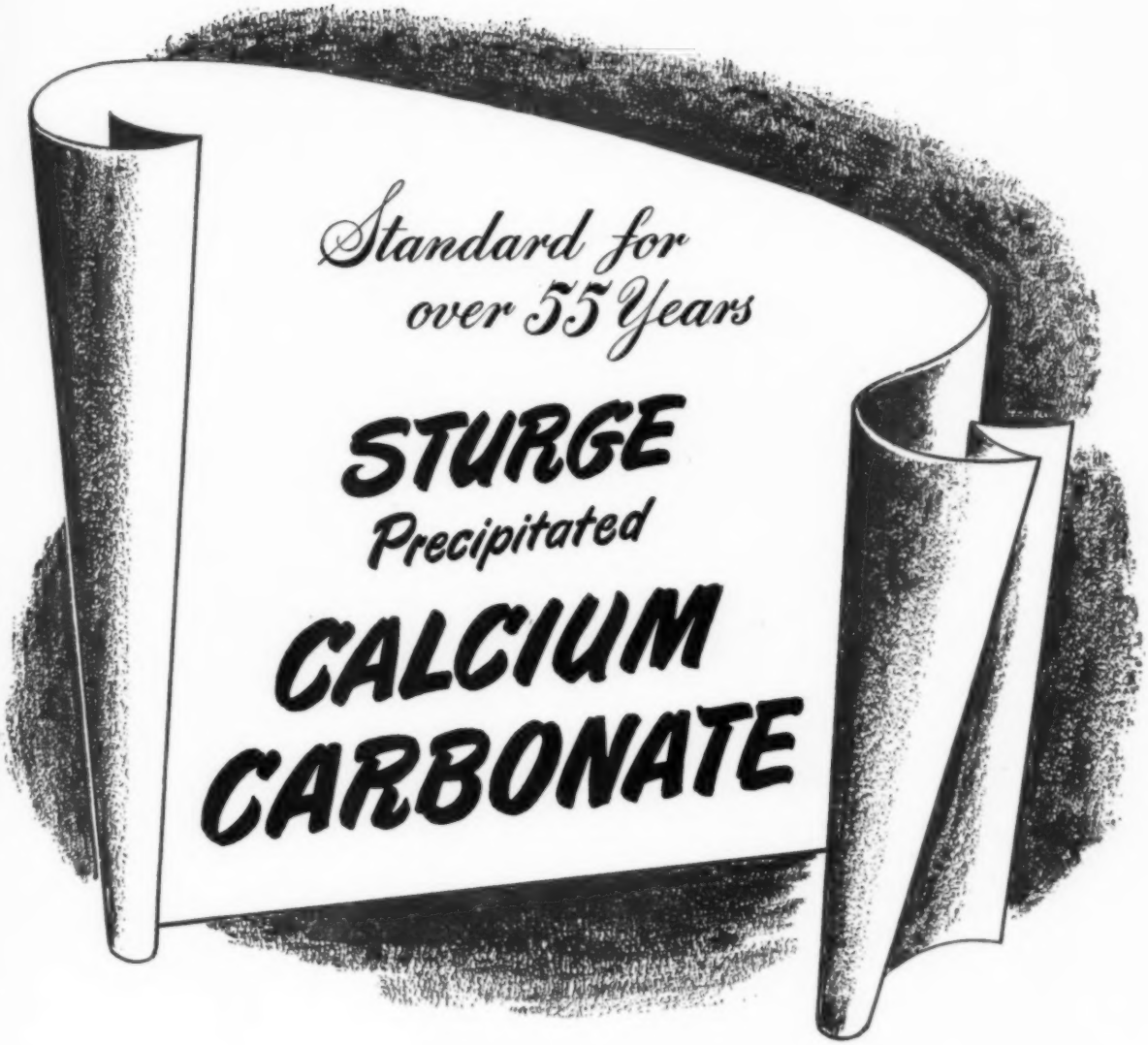

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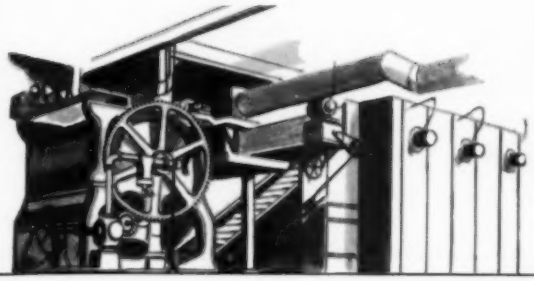

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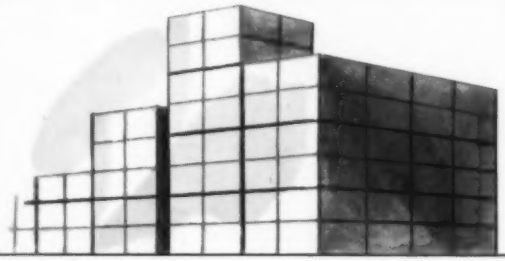

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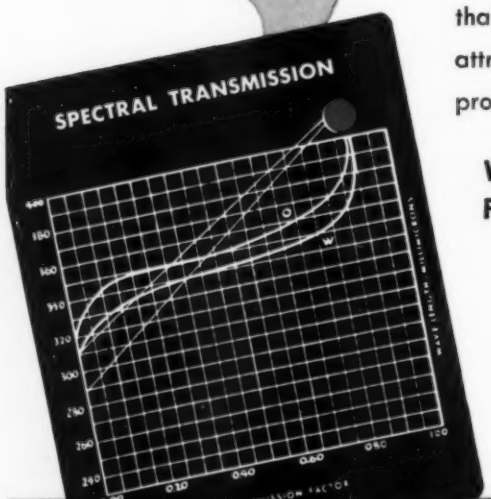

Perfect Sun-Screening & Perfuming agents *Combined*

Just mix Sunaromes with the base you prefer . . . water-gum, water-alcohol, or even water alone. You can also use a cream base, mineral oil, fatty oil, etc. It's the Sunaromes that make them effective sun screens . . . and scent them so attractively. The protection is positive . . . and there is no problem of skin irritation.

WRITE TODAY FOR COMPLETE DATA, FORMULAS & SAMPLES WITHOUT OBLIGATION

- **SUNAROMES** completely screen out harmful rays of the sun between 2900-3100 angstrom units.
- **SUNAROMES** permit sufficient of the actinic rays to reach the skin for a beautiful and healthful tan.
- **SUNAROMES** combine a perfect and tested sun-screen and a wide choice of perfumes, soluble in all media, for easy and simple manufacture.
- **SUNAROMES** are economical to use.
- **SUNAROMES** are non-irritating to the skin and stable in the finished preparation.

SUNAROME Trade Mark Registered U. S. Pat. Off.

AROMATICS · PERFUME BASES · ESSENTIAL OILS

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B & A ANNOUNCES INCREASED PRODUCTION OF ANHYDROUS CALCIUM CHLORIDE

Purified and Reagent Grades

New Production Process Incorporates Latest Developments in Equipment and Automatic Control. Assures Consistent Quality, Uniform Particle Size!

To serve growing needs of chemical, pharmaceutical and food industries, Baker & Adamson has added extensive new production facilities for high purity Anhydrous Calcium Chloride at its B&A Works, Marcus Hook, Pennsylvania. Incorporating the latest developments in automatic control, the new process assures consistent quality and uniform particle size of the product.

As in the past, B&A Anhydrous Calcium Chloride—Reagent and Purified Grades—is available in various sizes ranging from number 20 mesh to ½" lumps. Each size is carefully processed to meet exacting production requirements. Like the reagent grade, the purified material is carefully controlled for alkalinity, making it especially adaptable for industrial drying operations. Both grades are porous to provide maximum absorption.

This increased productive capacity will enable Baker & Adamson to meet expanded laboratory and industrial requirements, as well as to maintain adequate stocks at the company's distributing stations throughout the country.

BAKER & ADAMSON *Fine Chemicals*
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* Full stocks B & A products are carried here

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an excellent Rose odor suitable for use in
perfumes, lotions, creams, powders, etc.

HYDRO MUGUET

to be used either as a base for Muguet type
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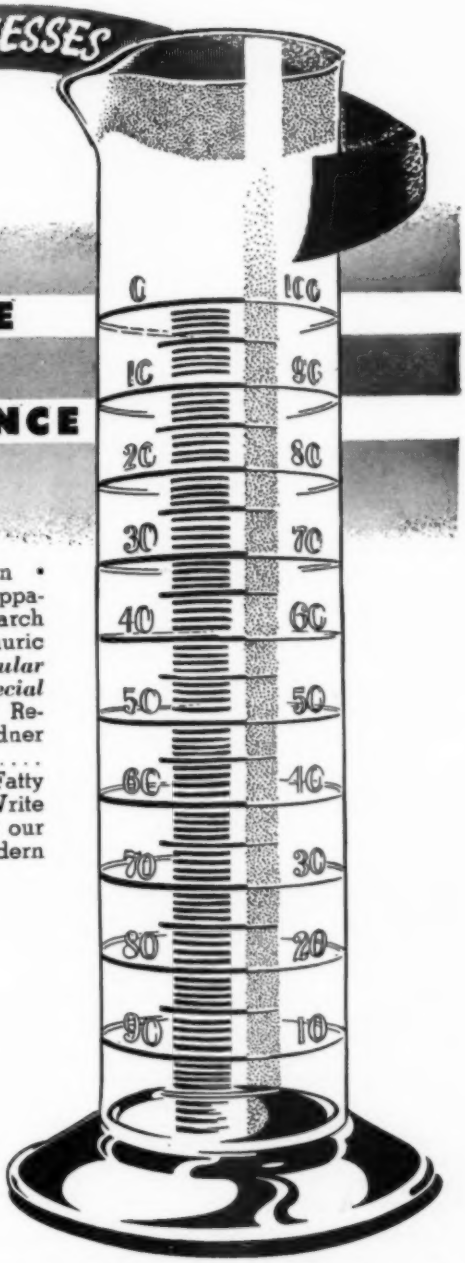

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Years of Fatty Acid Specialization • The Most Modern Distillation Apparatus Available • Constant Research • Constant Control • Uniform Lauric Content • *Two Grades; Regular* No Fractions Removed and *Special* Capric and Caprylic Fractions Removed • Color as Light as I Gardner 1933 ..... The Better Coconut Fatty Acid by A. Gross & Company • Write for your samples and a copy of our new booklet "Fatty Acids in Modern Industry".

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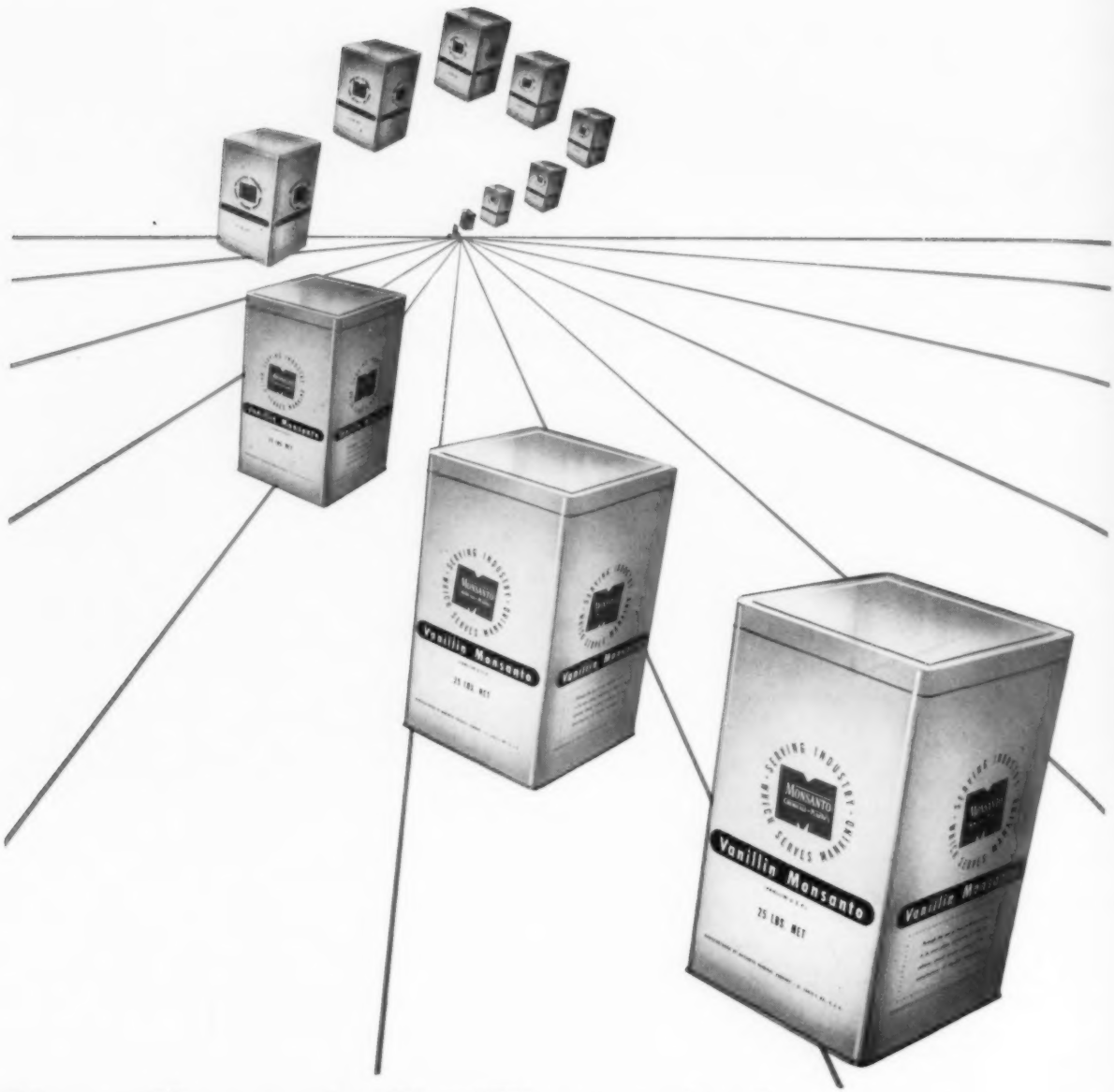
Factory: Newark, N. J.

MANUFACTURERS SINCE 1837



More Monsanto Vanillin coming!

Construction workers are busy today erecting a new Monsanto plant for the production of vanillin. The expanded output will be available to add flavor or aroma to your pharmaceuticals or soaps early next year. The new vanillin production also will release facilities for the manufacture of more Ethavan. Thus, the project will relieve shortages of both Monsanto Vanillin and Monsanto Ethavan.

The additional production will maintain the high standard of purity that has made Monsanto Vanillin preferred by drug and cosmetic manufacturers for nearly 35 years. Monsanto Vanillin, having true flavor and aroma, always is uniform . . . always dependable in your formulations.

For product information on Monsanto Vanillin or other Monsanto flavor and aroma chemicals, contact the nearest Monsanto Sales Office or write MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, 1700 South Second Street, St. Louis 4, Missouri.

MONSANTO FLAVOR and AROMA CHEMICALS

Coumarin Monsanto — Often used to "fix" delicate flavors of Ethavan and vanillin.

Ethavan — Monsanto's ethyl vanillin produces a distinctive vanilla-like flavor and aroma.

Methyl Salicylate — Synthetic oil of wintergreen.

Vanillin Monsanto — A delightful vanilla-like flavor and aroma.

DISTRICT SALES OFFICES: Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Houston, Los Angeles, New York, Philadelphia, Portland, Ore., San Francisco, Seattle. In Canada, Monsanto (Canada) Ltd., Montreal.

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CHEMICALS — PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

Fans breeze through the shipping department in this H & D corrugated shipping box

Time spent packing goods for safe shipment often is a sizeable business expense—and with highly seasonal products, packing time can be an actual production bottleneck. The makers of Atlas-Aire fans solved their rush-season packing problem with this H & D corrugated box. Built-up pads replace the time-wasting packings formerly used, and protect the fans so well that damage claims now are negligible.

The Package Laboratory is ready to help with your packing problem, whether you're anxious to reduce packing time, or to cut costs . . . improve display . . . or provide better protection. For booklet, "Package Engineering," write Hinde & Dauch, 5106 Decatur St., Sandusky, Ohio.

H&D®

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Authority on Packaging

FACTORIES IN: Baltimore • Buffalo • Chicago • Cleveland Detroit • Gloucester, N. J. • Hoboken, N. J. • Kansas City, Kan. Lenoir, N. C. • Richmond, Va. • Sandusky, Ohio St. Louis • Watertown, Mass. *Offices in principal cities.*

FOR TECHNICAL INFORMATION WRITE:
WHITE OIL, PETROLATUM and SULFONATE DIVISION
L. SONNEBORN SONS, Inc., 300 Fourth Ave., New York 10, N. Y.

Put that "plus value" into your products with ROWAG vacuum deodorized AAA —the lanolin that puts quality into cosmetics without increasing costs.

ROWAG vacuum deodorized AAA lanolin is the finest available—light in color, clean in odor, and glossy in texture. A powerful emulsifier, emulsion stabilizer and skin emollient with a consistently high cholesterol content—15% to 17%.

Write for samples and see for yourself why ROWAG vacuum deodorized AAA is *the lanolin* preferred by many leading cosmetic manufacturers.

ROBINSON WAGNER CO., INC.

Leaders in Lanolin Research and Development

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CANDELILLA	OURICURY
CARNAUBA	OZOKERITE
CERESINE	PALM

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The above waxes are imported, refined and specially compounded in our plant, assuring the customer of uniform quality.

GUMS

ARABIC	LOCUST BEAN
GHATTI	TRAGACANTH
KARAYA	ISCOLIZED GUMS

These gums are processed to standards of cleanliness and uniformity to meet the strictest customer specification.

This is a picture of our factory in Jersey City, N. J. where various Waxes and Gums are processed.

You'll like ISCOOPERATION!

When it comes to raw materials for the drug and cosmetic industry, it will pay you to investigate ISCOoperation.

Every step of the way, from selection of raw materials down to the careful control of quality, you will find Innis, Speiden outstanding. Our laboratories and our technical consultants will be glad to help you on any problem involving an ISCO product. Write today for full information on ISCO products for your own use. You'll like ISCOoperation—every step of the way.

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SUBSIDIARY E. S. BROWNING CO., INC.
SAN FRANCISCO LOS ANGELES

17 major tests!

to assure lipstick quality

KOLMAR, recognized as America's leader in private label cosmetics, assures *highest quality* and *uniformity* by an intensive program of tests and retests. *Lipstick,* for example, is given 17 major tests and many additional routine tests throughout the entire manufacturing process.

Besides the more or less routine tests, such as melting and softening point; application, correctness of shade, sheen, color distribution, etc., we of Kolmar make special tests such as breaking point, water bleeding and scientific stain analysis. Many of the major tests are done with micro-photographs (magnified 400 times).

Kolmar's testing program is continuous from the raw materials to the finished product. Every batch of lipstick made, regardless of size, is not only given the 17 major tests, but all the tests are repeated and repeated until the batch is used up. Only a few of the 17 major tests are listed here, but we shall be glad to reveal Kolmar's complete testing data to interested parties.

KOLMAR methods are unique. Its various plants across the country are staffed by *experienced chemists and highly trained technicians,* continually seeking new and better methods . . . and when necessary, inventing and producing special machinery and equipment to achieve the results desired. Thus KOLMAR Laboratories are recognized as *originators, pioneers* and *leaders* in the creation of finer cosmetic products.

Kolmar Private Label Cosmetics give you the ultimate in consumer appeal and satisfaction. Consultation will not obligate you.

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MILWAUKEE 2, WISCONSIN

PRIVATE LABEL COSMETICS EXCLUSIVELY

PLANTS IN PORT JERVIS, NEW YORK; TWO PLANTS IN MILWAUKEE, WIS., AND ONE IN HOLLYWOOD, CALIF.
CANADA: KOLMAR WILCKENS, LTD., PLANT IN OAKVILLE, ONTARIO; OFFICE: 205 YONGE ST., TORONTO, ONT.
AUSTRALIA: KOLMAR (AUST.) PTY. LIMITED, 494 KENT ST., SYDNEY; KOLMAR EUROPE: PARIS, FRANCE

WHY IT PAYS TO COUNT ON MERCK

ANTIBIOTICS
BISMUTH SALTS
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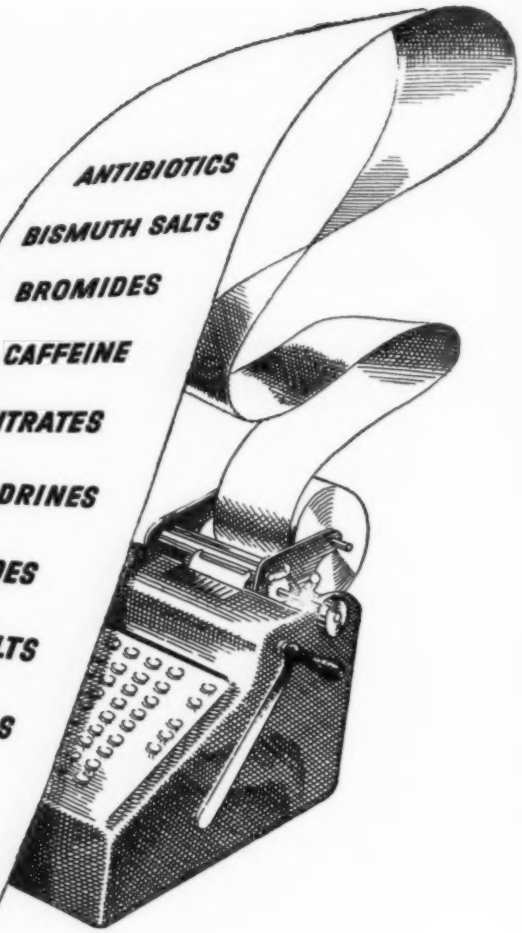
EPHEDRINES
IODIDES
IRON SALTS
MERCURIALS
QUININES
SALICYLATES
SULFONAMIDES
THEOBROMINE
THEOPHYLLINE
VITAMINS
ZINC SALTS

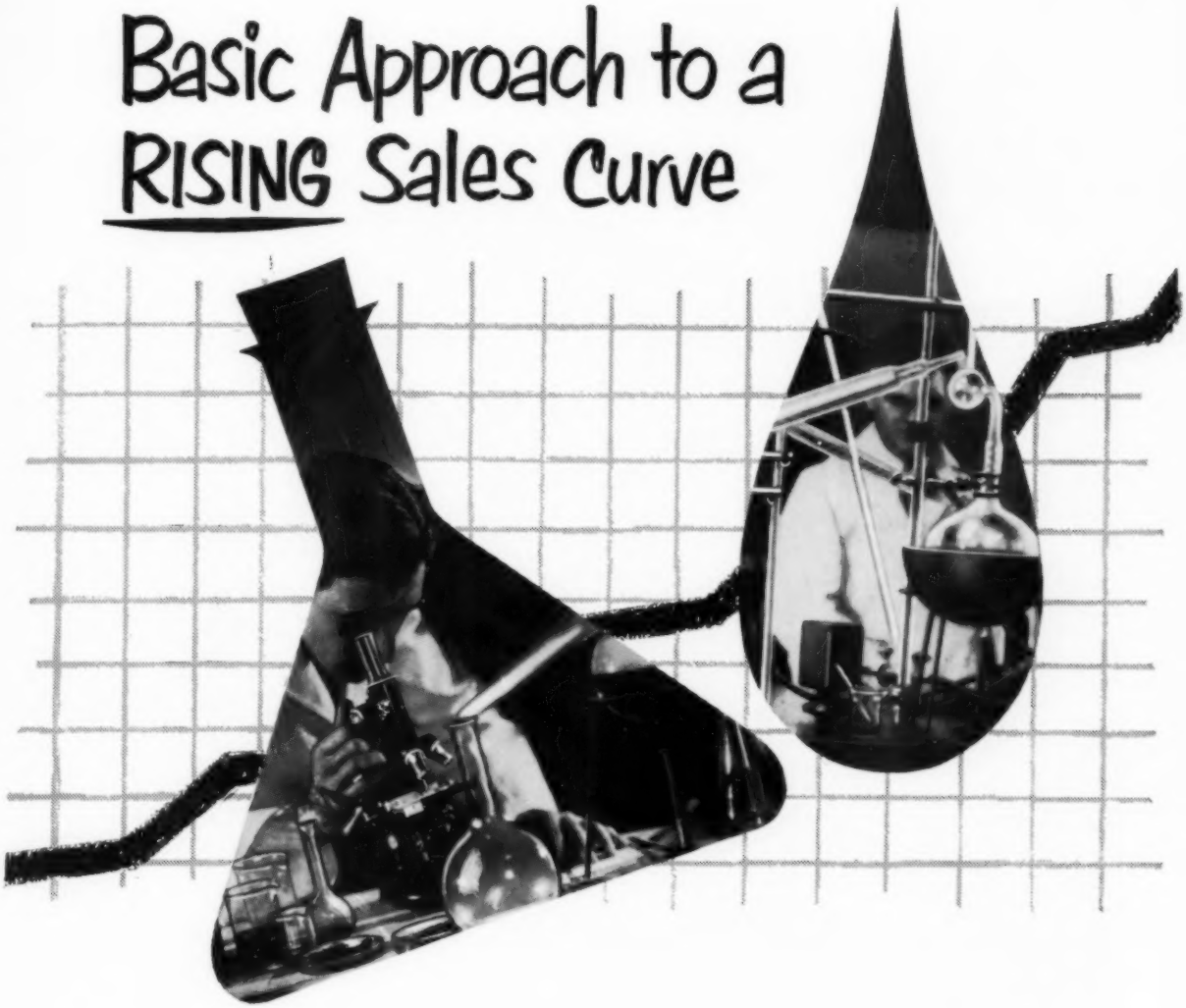


Chemical users have learned that they can "count" on Merck products for purity, uniformity, and dependability. These vital properties are the result of over 133 years' pioneering experience in the manufacture of fine and medicinal chemicals. Such dependable quality forms a logical basis for specifying Merck chemicals for your process or product needs.

Research and Production for the Nation's Health

MERCK & CO., INC.
Manufacturing Chemists
RAHWAY, NEW JERSEY
In Canada: MERCK & CO. Limited—Montreal

Basic Approach to a RISING Sales Curve



THE SUREST ROUTE to *lasting* sales-improvement is product-improvement . . . and often the most effective way to improve a product is through *improved* flavor or scent!

As one of the world's great suppliers of Essential Oils, Perfume Oils and Concentrated Flavors, MM&R has cooperated in the establishment of individualized odor or flavor personalities for *hundreds* of leading products! Perhaps MM&R can now be of important service to *you!* More than 56 years of specialized experience are at your command, without obligation.

For full information, write to the MM&R Technical Service Dept. today.

Builders of
PRODUCT PREFERENCE
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PERFUME OILS • FLAVORS
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Since 1895

MAGNUS, MABEE & REYNARD, INC.

SINCE 1895 . . . ONE OF THE WORLD'S GREATEST SUPPLIERS OF ESSENTIAL OILS

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PERFUME SPECIALTIES FOR COSMETICS

NEW YORK • CHICAGO • LOS ANGELOS • TORONTO

AROMATIC CHEMICALS - PERFUMERY SPECIALTIES - ESSENTIAL OILS

RAISE THE ROOF AT N.Y.Q.

AND YOU'LL FIND OVER 2000 FINE CHEMICALS!

No wonder leading pharmaceutical manufacturers look to N. Y. Q. as a PRIMARY source of supply for their varied requirements.

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Beauty Fashion

Provides a straight line to the most profitable points of sale.

1 *Reaches the retailers who know how to sell perfumes and cosmetics and who do sell well over 80% of these products, except low priced, mass distributed toiletries.*

2 *These retailers are nearly all (86%) located in the 168 metropolitan markets which do 75.27% of all apparel sales and over 85% of the perfume and cosmetic sales of selected cosmetic distribution.*

3 *The key to selling in these stores is the girl behind the counter. Beauty Fashion's club subscription, editorial policy, school training program and personal contacts have, over 35 years, made these girls an intimate part of Beauty Fashion's readers.*

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Phone: LOngacre 3-3177

For...
LIFE!
SPARKLE!
VERSATILITY!
Depend on Du Pont
ALPINE VIOLET*
TRADE MARK
Use "Alpine Violet" for its basic floral note . . . to exalt all florals and to improve their lasting qualities. "Alpine Violet" is ideally suited for use in soaps. Remember it when you want extra punch . . . new verve . . . in bouquets. "Alpine Violet" is stable, alkali-resistant and non-irritating to the skin. It's superior to Hydroxycitronellal . . . with an odor of true mountain cyclamen. "Alpine Violet" gives subtle emphasis to such florals as Lily of the Valley, Japanese Lily, Wild Reseda, Honeysuckle, Lime Blossom, and to all floral bouquets. Practically water-white liquid . . . unusually fragrant . . . "Alpine Violet" is offered in three concentrations, all created to intensify floral effects.
But whatever the product, whatever the fragrance, let Du Pont help you with your perfume problems. E. I. du Pont de Nemours & Co. (Inc.), Organic Chemicals Dept., Aromatics Section, Wilmington 98, Delaware. Branch offices: Atlanta, Boston, Charlotte, Chicago, New York, Philadelphia, Providence, San Francisco.
DU PONT
REG. U. S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING . . .
THROUGH CHEMISTRY
DU PONT AROMATICS
*Du Pont's trade mark for its para isopropyl alpha methyl dihydro cinnamic aldehyde.

LINGERIE: JOHN NORMAN PHOTOGRAPH: MARK SHAW

fragrance is your business

Givaudan offers you an intangible asset that has made possible the development of world-renowned perfumes of unquestioned originality and outstanding success. This asset is

CREATIVE IMAGINATION

which springs abundantly from the wealth of our experience, specialized skill and modern facilities.

It can be the *difference* that spells continued success for you in the creation of fine fragrances.

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"Yours For Quality
In All Things Fragrant"

Givaudan-Delawanna, Inc.

330 West 42nd Street, New York 18, N. Y.

Branches: Philadelphia • Boston • Cincinnati • Chicago • Seattle • Los Angeles • Toronto

CHANGE THE FOCUS AND *sharpen* THE IMAGE

Almost everyone at one time or another has the urge to examine more sharply the pattern of his objectives.

For us this is a vital, continuing obligation. Regularly for more than eighty years Mallinckrodt has tried to sharpen the focus on this one objective: *to provide pharmaceutical manufacturers with the finest chemicals that skill, progressive research and modern resources can produce.*

MALLINCKRODT CHEMICAL WORKS • St. Louis • New York • Montreal

Mallinckrodt®

PHENOBARBITAL U.S.P. • BISMUTH SALTS • IODIDES • MAGNESIUM TRISILICATE U.S.P. • CALCIUM GLUCONATE U.S.P. • VITAMINS • MERCURIALS • THEOPHYLLINE U. S. P.

• MANUFACTURERS OF FINE CHEMICALS FOR THE PHARMACEUTICAL INDUSTRY • SINCE 1867 •

"Why can't a guy shave with a baby shampoo and use a baby lotion for an after-shave and deodorant?"

Keeping Posted

F.T.C. Goes After Hadacol

CLAIMING that advertising for Hadacol is in violation of a stipulation in which The LeBlanc Corp. and Dudley J LeBlanc agreed to stop certain claims, the Federal Trade Commission has rescinded this stipulation and issued a complaint against the company, LeBlanc, sales manager, and Richard L. Brown, general manager. Stating that the preparation contains vitamins B_1, B_2, niacin, B_6, and pantothenic acid, plus the minerals, iron, manganese, calcium, and phosphorous, all compounded in a 12 per cent solution of alcohol, the complaint attacks not only the representations the respondents themselves make for the therapeutic properties of the product, but also challenges the content and manner of using testimonial letters, in which some writers declare, "I am positive that it is Hadacol that cured me."

The complaint cites as false claims made that Hadacol is of value in treatment of cancer, tuberculosis, heart trouble, diabetes, paralysis, epileptic fits, delirium tremens, neuralgia, migraine, blood diseases, stomach ulcers, rheumatism, arthritis, high or low blood pressure, asthma, swelling of the waist, hands and legs, cataracts, sinus trouble, and weakness and rundown condition following colds.

Also, the complaint says that Hadacol does not, as advertised, have any value in treatment of various other symptoms and conditions unless they are caused by deficiencies of vitamin B_1, B_2, niacin or iron. Such symptoms include neuritis, nervousness, constipation, loss of appetite, subnormal growth of children, lack of stamina, headaches, irritability, indigestion, chronic fatigue, loss of strength, insomnia, loss of weight, certain skin and eye disorders, anemia, nagging aches and pains, and brittle fingernails.

Vitamin and mineral defficiencies, according to the complaint, can only be detected by diagnostic tests conducted by skilled experts, and the ultimate consumer reading the advertisements has no way of knowing whether the conditions and symptoms for which Hadacol is recommended, and from which he may be suffering, are caused by vitamin B_1, B_2, niacin, or iron deficiencies, causing the advertising to confuse the reader, and thereby being deceptive. The FTC says that this type of advertising is deceptive "for the further reason that it has the tendency and capacity to cause a substantial portion of the purchasing public to think that their symptoms and conditions are caused by vitamin B_1, B_2, niacin, and iron deficiencies, whereas, in truth and in fact, many of the symptoms and conditions which may be caused by vitamin B_1, B_2, niacin, and iron deficiencies are more often than not due to other causes, in which cases respondents' preparation has no therapeutic value."

Some drug preparations, such as analgesics, the FTC points out, are used to relieve certain symptoms regardless of cause. Hadacol is not a symptomatic treatment, "but when symptoms are due to a deficiency of vitamin B_1, B_2, niacin, or iron, said preparation, taken as directed, will in time relieve such symptoms by correcting the deficiencies which cause them."

With reference to testimonial letters used in advertising, the FTC says that neither the writers of these letters nor the respondents are competent to judge whether such symptoms and conditions as are described were the result of deficiencies of vitamin B_1, B_2, niacin, or iron, or, if so, whether Hadacol relieved or cured such symptoms or conditions.

"The symptoms and conditions of nervousness, irritability, fatigue, loss of appetite, loss of strength, inability to sleep, below par condition, run down condition, loss of weight, neuritis, pains in the back, dyspepsia, indigestion, subnormal growth in children, headache, listlessness, nagging aches and pains, contained in respondents' testimonial advertising, may be caused by a number of other serious ailments having no relation to vitamin or mineral deficiencies, and for which respondents' preparation is of no value. Among such serious ailments are syphilis, tuberculosis, diabetes, arthritis, rheumatism, hypertension, arteriosclerosis, heart disease, kidney disease, endocrine disease, cancer, thyroid disease, disease of the female organs, liver disease, gall bladder disease, peptic ulcer, prostate disease, allergies and pernicious anemia. The dissemination of this advertising may cause persons suffering from the described symptoms or conditions due to one of the serious ailments listed above, to delay obtaining proper treatment, resulting in serious illness and even death."

The complaint also challenges respondents' claim that vitamins and minerals must be taken together to obtain the most benefit and that Hadacol, because it contains such a combination, is preferred as a diet supplement. The FTC says:

"Hadacol is not to be preferred as a diet supplement, first because it does not contain all the vitamins necessary for human nutrition and, second, because where there is a deficiency of the vitamins contained in this

preparation, better results can be obtained by giving more of those vitamins than are contained in the daily dose of Hadacol. It is not necessary that vitamins and minerals be taken together to obtain the most benefit from them."

Ferd. Muhlens to Lee and Roosevelt

RAYMOND Lee and John Roosevelt of the Lee Pharmacal Company are owners of Ferd. Muhlens, Inc. following acceptance by the Alien Property Custodian of their sealed bid of $126,500, which was the highest submitted as of October 25. Other bidders were J. I. Poses of Parfums D'Orsay $101,100; Northam Warren, $80,000; and Dagget & Ramsdell $50,000; Harold A. Weissmann, of the Miller Drug Company, Cleveland, $30,000; Mr. Friede, $25,180; Messrs. Berkins and Karas, $13,000; and Charles Destreisch, minus $15,500.

Mr. Lee introduced the Toni and Hudnut home permanents and was responsible for other hair preparations including Rayve Creme Shampoo and Spray-a-Wave. Mr. Lee relinquished his 83 per cent interest in Toni to R. W. N. Harris who subsequently sold out to Gillette for $20,000,000. In 1946 Mr. Lee gave up his laboratories to Warner-Hudnut for $1,000,000 plus assumption of a million-dollar loan. He also completed a deal with the Pepsodent Division of Lever Brothers to take over his Rayve Cream Shampoo and in 1948 formed the Lee Pharmacal Company in Beverly Hills where he developed Spray-a-Wave. At this time John Roosevelt became president of Spray-a-Wave, a subsidiary of Lee Pharmacal Company.

Ferd. Muhlens Facts

FERD. MUHLENS, INC., seized by the Alien Property Custodian at the start of World War II, was the result of merger of American firm of Muhlens & Kropff and the German firm of Ferd. Muhlens. Muhlens & Kropff were the agents in this country for the German firm prior to World War I. When the property of the German firm in this country was seized at the beginning of World War I, the American partner, Kropff, bought this property from the Alien Property Custodian. Sometime after the first World War was over, Ferd. Muhlens of Germany again entered this country and started selling "4711" Eau de Cologne, even though Muhlens & Kropff owned the rights to this trade-mark in this country as part of their purchase from the Alien Property Custodian. When Ferd. Muhlens advertised that its 4711 Cologne was the only original one because the recipe was known only to the German firm, Muhlens & Kropff brought suit. However, the court decided that Muhlens & Kropff could not prevent Ferd. Muhlens from using the 4711 trade-mark since Muhlens was the only one who was able to produce the product which the public had long been getting under this trade-mark. This left the American firm with very little left of its purchase from the Alien Property Custodian, and the two companies then merged in 1931 to form the new firm of Ferd. Muhlens which remained German property until the start of World War II.

The American firm of Ferd. Muhlens as offered this time, again is not in possession of the formula for 4711 Eau de Cologne, and the buyer of it would probably be up against the same thing that Kropff was up against should the German firm again reenter the market. The German firm would probably again use the trade-mark 4711, and the buyer of the property from the Alien Property Custodian would be powerless to stop this use even though he had bought the American rights to the mark. With regard to other products, the American company possessed complete formulae only for transparent glycerine soap and medicated soaps.

In 1950, the 4711 Eau de Cologne accounted for 36 per cent of the total sales of the company; perfumed Eau de Colognes accounted for 18 per cent; glycerine soap, 26 per cent; milled soap, 5 per cent; miscellaneous, 6 per cent; and Pritti (liquid cuticle molding set introduced in 1949), 9 per cent. A royalty of 5 per cent of sales of Pritti is paid to F. W. Bryant Company, Florham Park, N. J. Also, the trade-mark, Pritti was assigned by Oscar C. Olin (president of the company) to the company last February and then was registered in the name of the company. It is required that the purchaser of the company pay Mr. Olin one per cent of the net sales of Pritti.

Company operations have shown a loss for the past four years: 1951 (8 months), loss $27,439; 1950, loss $43,260; 1949, loss $160,075; 1948, loss $53,237; 1947, loss $49,247, which was reduced from a loss of $78,666 by a refund of $29,419 of Federal income and excess profits taxes for years 1944 and 1945. 1946 showed a profit of $16,125, converted from a loss of $17,112 by refund of $34,237 of taxes for 1944 and 1945. Sales for these periods were: 1951 (8 months), $132,480; 1950, $335,382; 1949, $310,805; 1948, $337,095; 1947, $360,142; 1946, $543,262.

The company owns a plant at 79 Broadway, Jersey City. The property and building and fixtures are carried at $71,988.63. The company employs, in addition to three officers, five salesmen, five office employees, and thirteen factory employees.

Hugo Mock on Miracles

"MAY I put in my two cents worth of approval to the guy who wrote the editorial on page 455 of DRUG AND COSMETIC INDUSTRY, October 1951, 'Doctor Object to the Word Miracle'", writes Hugo Mock, Counsel for the Toilet Goods Association. Mr. Mock's letter continues:

"I think it is time that somebody put the doctors in their place as I believe the majority of doctors look upon the body purely from a mechanistic point of view like a valve in head motor and the human body is entitled to a great deal more reverence than that.

"Alexis Carrel was something of a scientist and physician and yet he believed in the miracles of Lourdes and all other forms of miracles. Indeed each of us is a living miracle.

"The inscription on a granite monument is usually erased after fifty years but that little bit of gelatin known as the human heart keeps on ticking up to one hundred years, but we are so used to it that we make no fuss about it.

"Three cheers for Voodoo and all other miracles."

Lederle Gets Direct Mail Honors

LEDERLE Laboratories' direct mail advertising campaign has been judged by the Direct Mail Advertising Association the best of the pharmaceutical industry and the best for all industry for 1951. The program was initiated and carried through by Lederle's Director of Advertising, Dr. David A. Bryce; Helen Staunton, production assistant; and the Sudler and Hennessey art agency. Pieces considered in the judging included the Lederle Bulletin, Aureomycin Digest, news letters to doctors and dentists, booklets on Flaxedil, Heparin and Varidase; index cards, blotters, and other promotional literature.

Wildroot Charged with R-P Violation

WILDROOT Co. has been charged with unlawful payment of push money and cooperative advertising allowances in violation of the Robinson-Patman Act. Payments for these services to chain retail drug stores during 1950 totaled $184,000, and the Federal Trade Commission complains that similar payments "were not available in any amount to thousands of independent retail drug stores" which compete with the chains in the resale of Wildroot products. The Commission points out that in 1950 approximately 99½ per cent of Wildroot's retailer-customers were independent druggists whose dollar volume of purchases from Wildroot accounted for about 80 per cent of all sales of Wildroot products.

Some of the customers, says the FTC, received an amount equal to five per cent of their purchases which they passed on to clerks in the form of push money for promoting the sale of Wildroot Cream-Oil Hair Tonic and Wildroot Liquid Cream Shampoo. Payments of a similar amount also were made to some customers for maintaining permanent daily counter and window displays and a feature window display each quarter. Agreements with some customers provided that they would be reimbursed for the entire cost of newspaper advertising of Wildroot products to be run as a listing with the customer's own advertisement. Customers were required to furnish proof of the advertising and to display Wildroot products in windows and on counters when the ads were running.

Some of cooperative ad allowances, says the FTC, were limited to an amount based on 10 per cent of purchases of Wildroot products during the previous year. In other cases the amounts were different among competitive customers, "being arbitrarily determined in negotiations with individual customers in disregard of the requirement that such payments be available on proportionately equal terms."

Wildroot also paid certain customers for advertising its products on radio and television and in connection with special promotional sales, the Commission charges, and in these instances, also, the services or facilities to be furnished, as well as the payments, were "arbitrarily determined" by Wildroot in complete disregard of the "proportionately equal terms" requirement.

The complaint charges that whether the payments to some customers were for push money, cooperative ads, radio and television commercials, or other services or facilities furnished, they "were not available on proportionately equal terms or were not available on any terms to all . . . customers."

Sun Tan and the Atom Bomb

IF WE are to be subjected to atomic explosions we shall have to stop trying to get our skins tanned by the Sun's rays or by the use of Sun lamps, according to Dr. Konrad J. K. Buettner, of the Air Force School of Aviation Medicine. He said that fair-skinned individuals have the best chance of surviving an atomic explosion. Pallid skin will reflect up to 40 per cent of the heat to which it is exposed, said Dr. Buettner, whereas dark-skinned persons may absorb all but 10 per cent of the heat given off by a sudden blast. He conducted experiments with cuts of white and black pork in sharply concentrated sunlight, the only means of simulating heat from an atomic explosion. He found that dark skin blisters and boils immediately upon contact, carbonizing the flesh before the nerves could send the brain a warning. In either case, he said, a person very close to an atomic blast will be exposed to more heat then the human flesh can endure—more than 10,000 degrees F.

All of which should create a market for products which will completely shut out all the Sun's rays when applied to the skin.

Cosmetic Chemists Program

A SYMPOSIUM on hair will constitute the morning session of the technical meeting of the Society of Cosmetic Chemists at Hotel Biltmore, New York, December 6. A sound movie on photomicrographic techniques for studying hair soil and detergency will be shown by V. M. Votaw of Procter & Gamble; Dr. E. I. Valko of Brooklyn Polytechnic Institute and G. Barnett of Warner-Hudnut will present a study of swelling of hair in mixed aqueous solvents; Dr. Walter J. Hamberger of Fabric Research Laboratories of Boston will discuss the effect of chemical treatments on the mechanical behavior of hair; and Dr. Richard Steele of Textile Research Institute of Princeton will present recent developments in research on the structure of keratin fibers.

Other phases of cosmetic research which will be discussed during the afternoon session are: Deodorizing Properties of Chlorophyll in Dentifrice by Dr. Louis Barail of the U. S. Testing Company; Foaming Properties of Surface-Active Agents by H. W. Zussman of Alrose Chemical Company; Stability of Soaps and Detergents by G. N. Miles of Colgate-Palmolive-Peet Company; and Germicidal Soaps in Cosmetics by Professor C. A. Lawrence of the University of Michigan.

F.T.C. and Loss Leaders

IN LOOKING over the Proposed Trade Practice Rules for the Grocery Industry, issued by the Federal Trade Commission last month, we were struck by Rule 6, which reads:

"It is an unfair trade practice for any member of the industry to advertise, offer, or sell a product in commerce below cost (a) as a 'loss leader' used in inducing the purchase of other merchandise on which such loss is recouped, where this practice has the capacity and tendency of misleading or deceiving the purchasing public; or (b) in any instance where this practice is employed with the purpose or intent, and where the effect may be, to substantially injure competition or tend to create a monopoly."

The Grocery Industry to which these rules apply includes "persons, firms, corporations and organizations engaged in marketing one or more products to or in the grocery trade, and includes manufacturers, brokers, wholesalers, and retailers of such grocery products." Therefore this rule applies to retail grocers of all sorts, as well as to others in the food business. However, the rule does not appear to apply simply to loss leaders as such, but only when they are offered under certain conditions.

In talking with a food packer recently we were told that due to the greatly overproduced condition of the apple market with apple growers unable to move their crops at anything approaching reasonable prices, the A. & P. was selling apple sauce at a price which was less than the actual cost of the goods plus the established cost of doing business for A. & P. However, he pointed out that was causing far greater amounts of apples to be moved to consumers in comparison with the amounts of peaches, pears, and other fruits that were moving

and therefore tended to help relieve the depressed state of the apple market. We wonder whether the FTC would consider that action in violation of such a rule.

But aside from all the whys and wherefores of loss leaders, it is indeed surprising to see the FTC interested in supporting prices at retail, when for years they bent all their efforts in the direction of destroying the effectiveness of the Miller-Tydings, a result which was finally accomplished by the Schwegmann decision for which the Department of Justice argued as *amicus curiae*.

"Miracle" Drug Prices Cut

WHEN one "miracle" drug is reduced in price, others quickly follow suit. Recently Chas. Pfizer & Co. reduced the prices of its antibiotic, terramycin, 15 to 40 per cent, according to dosage form. The reduction in the price of capsules was 15 per cent, and of ampules, 40 per cent. Within the next day or two following this announcement, Lederle Laboratories announced a similar reduction in the prices of aureomycin, and Parke, Davis & Co. announced a similar reduction in the prices of Chloramycetin.

Some time prior to October 1, Merck & Co. announced a 15 per cent reduction in the price of cortisone effective October 1. On October 1, Armour and Company announced price reductions on ACTH averaging 25 per cent, which will result in a saving of five to eight dollars per day to the patient using the product in the treatment of certain diseases.

In announcing the price reductions on ACTH, Armour also announced a long-acting form of the drug known as Acthar Gel, which, after initial treatment need be injected only once every one to three days, in contrast to as many as four injections a day of Acthar powder in solution, with the consequent saving of time, money and discomfort. The new Acthar Gel sells at the same price as the Acthar powder. It does not replace the powder, however, because the powder has certain advantages in certain diseases where rapid action is needed.

To Investigate Cosmetic Ingredients

AS THE RESULT of the use in shampoos of a synthetic detergent which had an untoward effect upon the eyes of the user of the products, U. S. Food and Drugs Commissioner Charles W Crawford recently called for amendment of the Federal Food, Drug, and Cosmetic Act to require FDA approval of new cosmetic ingredients. Speaking before the Food, Drug, and Cosmetic Law Division of the American Bar Association, Commissioner Crawford said:

"The new detergent in these products was a detergent that some firms had investigated and rejected as too dangerous for use where it might get into the eyes. Injuries to the eyes of a number of people who used this shampoo was reported. Our tests on laboratory animals showed that even when the eyes were immediately washed out with clear water severe inflammation was caused, resulting in some cases in opaque scar tissue that impaired sight for a protracted period and perhaps permanently."

Following this, Congressman Delaney who has been chairman of the Select Committee investigating chemical additives to food with a view to bring them under more complete control by the FDA, requested Congress for the power also to investigate the question of cosmetic ingredients. This power was granted by Congress but it is not expected that the committee will be ready to investigate cosmetic ingredients until early 1952.

Heyden Chemical Facts

OF THE SALES of Heyden Chemical Corporation for the first six months of 1951, which totaled $15,677,670, 57.2 per cent were chemicals sold for industrial uses, 38.2 per cent were of products for medicinal and pharmaceutical uses, and 4.6 per cent were products sold to the drug trade. No single customer accounted for as much as 4 per cent of sales. Antibiotic sales accounted for 27.5 per cent of total sales during the first six months of 1951, compared with 19 per cent for 1949, and 27 per cent in 1946. The low percentage in 1949 was caused by increased competition and "very large price reductions", according to the prospectus issued in connection with the company's offering of preferred stock. Antibiotic sales for export during the first six months of 1951 constituted 62 per cent of total antibiotic sales, and 17 per cent of the total sales of the company. Export sales of the company amounted to $3,000,000 during the first six months of 1951, of which approximately 90 per cent were antibiotics. This compares with export sales for the year 1950 of $3,900,000, and $1,500,000 for 1946. About one-half of export sales for the first half of 1951 were in the Western Hemisphere.

Heyden and its subsidiaries produce and sell about 150 chemicals, exclusive of pharmaceuticals and drug sundries. Items purchased in finished or semi-finished form for resale in 1950 accounted for 4 per cent of total sales.

The 4.6 per cent of the sales of the company for the first six months of 1951 which represents products sold to the drug trade, amounts to $720,718. This figure then, represents the sales of Jamieson-Nyal part of the company's business for the half year.

Commercial Solvents Given Award

COMMERCIAL Solvents was judged as having the best annual report in the chemical industry, followed by Monsanto Chemical Co. as runner-up, and Hooker Electrochemical Co. in the third spot. The ratings were given by an independent board of judges in the Financial World Survey of Annual Reports, and the bronze "Oscar of Industry" was presented to Commercial Solvents President J. Albert Woods, October 29.

New Chloromycetin Plant

PARKE, Davis & Company is more than doubling its production of Chloromycetin by erection at Holland, Michigan, of the world's first and only plant for the exclusive manufacture of an antibiotic by chemical means. The plant is expected to be in operation by the end of this year. The plant is on a 28-acre plot on which stand buildings formerly occupied by the Armour Leather Company, buildings which have had to be made over almost completely. One building is nearly as long as a football field and contains millions of feet of pipe leading to and from huge tanks. Giant machines make flake ice for cooling a chemical reaction requiring the use of 18,000 pounds in a single batch in about one hour. Aluminum and stainless steel kettles stand nearly three stories high. Unusual precautions have been taken to make sure that no waste materials get into nearby waters. A 1,600-foot well has been

pumped—far below any sources of surface water—into which chemical wastes will be pumped. The plant will draw from more than 40 different wells having a capacity of about 1,000 gallons a minute.

Price Maintenance Plan Brings Indictment

PLANS to circumvent the Schwegmann decision and force non-signers of fair trade contracts to observe fair trade minimums are running into difficulty with the Department of Justice. In the first case brought against this practice by the Government an indictment has been handed down by a Federal Grand Jury at Pittsburgh. Those named in the indictment are The Alleghany County Retail Druggists Association, and the following companies, all of Pittsburgh unless otherwise indicated: Federal-Rice Drug Co.; George A. Kelly Co.; McKesson & Robbins, New York; Shipley Wholesale Drug Co.; Rand's; Sun Ray Drug Co.; and Thrift Drug Co. of Pennsylvania. They are charged with "a conspiracy, in violation of the Sherman Act, to maintain retail prices and to cooperate in preventing retailers from cutting prices," according to the department.

According to the indictment the defendants "agreed not to sell or offer to sell drug store merchandise at prices lower than those fixed by manufacturers in resale price maintenance contracts to which the defendants are not parties, or lower than manufacturers' suggested retail prices." They were accused of forming a committee "to prevent price cutting by retailers," and the wholesalers were specifically charged with refusing to sell to retailers who cut prices.

This action is directed against the activities of wholesalers and others who started to devise means of controlling prices at retail immediately after the Schwegmann decision was handed down. In several instances manufacturers cooperated with wholesalers who took over the enforcement of price maintenance through the intrastate aspects of fair trade. However the Department of Justice is opposed to these methods to enforce fair trade and is investigating a number of other alleged violations. It is said the department might proceed against other groups even before a decision is handed down in the Pittsburgh case.

Hold On to Your Magnetism

A CONVICTION was obtained by the Food and Drug Administration against Ruth B. Drown, Los Angeles chiropractor, for promotion of "radio" machines for diagnosis and treatment of cancer and every other serious disease. It was claimed that the machines can "tune in" the organs of the body with a single drop of the patient's blood, or two drops if the patient cannot be there in person. One defense witness told of being successfully treated from Los Angeles when she contracted pneumonia in Atlantic City. It was claimed that the only current used was that of "the patient's own body energy of life force." By turning in on the radio frequency of the disease, it was claimed that the diseased cells automatically fell away. Followers had to be careful to preserve their "body magnetism." One defense witness gave enthusiastic endorsement to the Drown admonition against shower baths. He explained that water is a conductor which would connect the patient with the vibrations of the sewer, so if he took a shower, his body magnetism and energy would go down the drain. He is also careful, he testified, not to pull out the stopper until after he has climbed out of the tub, and to clean the tub with a long-handled brush to avoid any contact with water going down the drain.

Government experts prominent in the fields of medical and chiropractic treatment, radio, and physics testified that the machines were worthless.

Antibiotics and Birds

HAVING accomplished many "miracle" cures, the antibiotics are about to make bird lovers, bird dealers, and bird importers and exporters happy. U. S. Public Health Service Surgeon General, Dr. Leonard A. Scheele, is about to relax the rigid restrictions on the importation of parrots, parakeets, and other members of the Psittacine bird family. The reason is obvious to anyone in the drug business: The effectiveness of the antibiotics in the treatment of parrot fever no longer makes this disease a public health menace.

F.T.C. Gets Imdrin Injunction

THE Federal Trade Commission finally won its suit for a preliminary injunction restraining what the Commission claimed to be false advertising of Imdrin, distributed by Rhodes Pharmacal Co., Chicago. This was the case in which the FTC sought to initiate use of its injunction powers which were granted to it by law but never before used. The district court refused the injunction when first requested and the Commission appealed to the Circuit Court of Appeals. The Circuit Court sent the case back to the District Court for further consideration. This time the District Court granted the injunction.

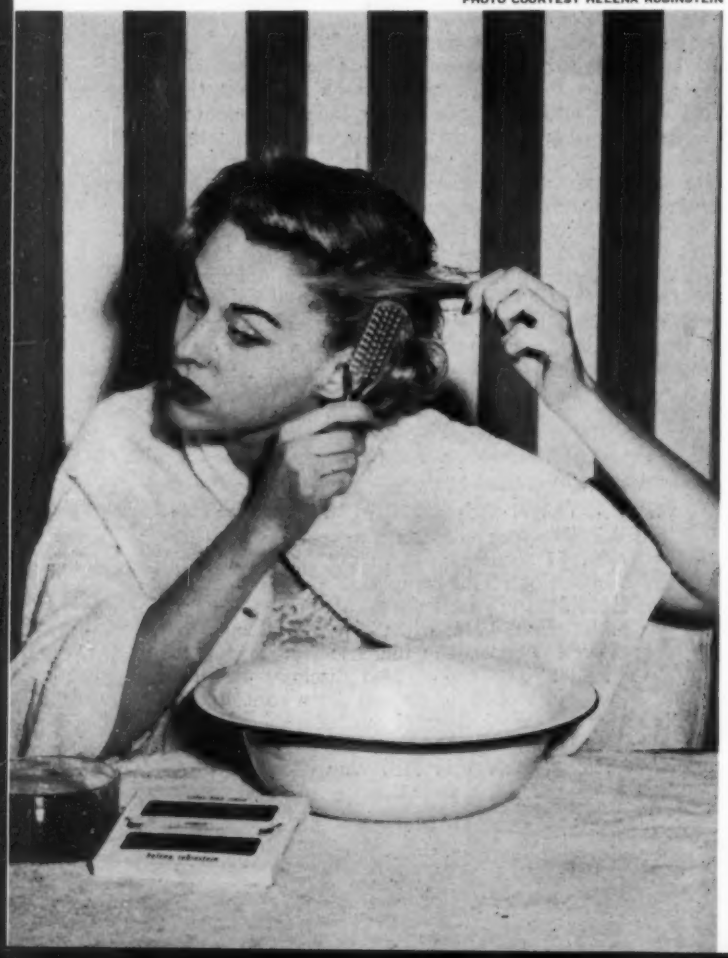
The court order was requested on the premise that the advertising was dangerous to health and should be stopped pending the trial of the charges by the Commission. One of the arguments of the defense was that the injunction had not been sought until long after the original charges had been brought. The order enjoins dissemination of advertisements which represent that Imdrin is an adequate, effective or reliable treatment for any kind of arthritis, rheumatism, neuritis, sciatica, gout, neuralgia, fibrositis, or bursitis; will cure these ailments, correct their underlying causes or arrest their progress; is an adequate, effective, or reliable remedy for the symptoms or manifestations of these ailments, or that its effect on the pains and discomforts of such conditions will be greater than such temporary and partial relief as may be afforded in the individual case; will enable persons afflicted with these ailments to resume their normal living or usual occupation; is a remarkable, amazing or sensational new discovery of scientific research.

Medical Students on Rise

AN ALL-TIME high of 26,191 students was enrolled in 79 approved schools in the United States for the 1950-1951 academic year, reports the American Medical Association. This compares with the previous high or 25,103 for the year before, an increase of 1,088, (4.1 per cent). Since 1941, when 21,379 were enrolled, in 77 approved schools, the increase has been 4,812 (22.5 per cent). The report also discloses that the academic year just opening up will see a continuation of this increase because of enrolment of a record freshman class. It is estimated that 7,400 new students will enter medical schools this fall, compared with the previous high of 7,182 a year ago.

Cosmetic Ingredient Inquiry

PHOTO COURTESY HELENA RUBINSTEIN



JUST before Congress adjourned, the House of Representatives adopted House Resolution 447 which authorizes the House Select Committee to Investigate Foods to extend the committee's powers of inquiry into the field of cosmetics. The Select Committee, under the chairmanship of Representative James J. Delaney of New York, was created to investigate the subject of chemical additives to foods, and is now engaged in investigating these chemicals as well as chemicals in insecticides and fertilizers, also with respect to their effect upon foods.

In addressing the Food, Drug, and Cosmetic Section of the American Bar Association in September, U. S. Commissioner of Food and Drugs, Charles W. Crawford, asserted that the Food, Drug, and Cosmetic Act should be amended to provide for control over new ingredients in cosmetics, similar to the new drug provisions of the Act. He cited the recent experience with shampoos containing a synthetic detergent which had a harmful effect on the eyes of the user of the shampoo.

Under date of September 13, Associate Commissioner of Food and Drugs, John L. Harvey, wrote to Vincent A. Kleinfeld, counsel of the Select Committee, the following letter outlining the action of the Food and Drug Administration with respect to harmful cosmetics which made their appearance on the market during the past decade:

"More than 10 years ago there developed in the cosmetic industry a determined effort to produce methods of curling hair which eliminated the elaborate machinery, discomfort, and costly procedures then involved in permanent waves. In San Francisco a company managed by an individual who is primarily an engineer and inventor developed an apparatus fitting on the head and hair which eliminated the heating devices used for permanent waves. The ingenuity and knowhow expended in developing the mechanical features of the apparatus were extensive, but the materials and solutions used in connection with it were selected because of their properties for assisting in the curling process without any investigation or study of the possible injurious or toxic effect of such solutions. The heatless permanent wave method thus developed was sold on a franchise basis to beauty salons throughout the United States. The heatless waves were cheaper, less time-consuming, and more pleasant to take.

PHOTO COURTESY HELENA RUBINSTEIN

"Shortly after national distribution was effected, a death was reported from Atlanta, Ga., which occurred while the subject was being given a heatless wave in a beauty shop. Tests then made indicated that the solutions were unsafe and likely to cause injury. Thereafter it was necessary to institute over 200 seizure actions to remove the outstanding stocks of the offending wave materials from the market and prevent further injury to the public.

"About 8 or 9 years ago the styles in hair arrangement for women resulted in a wide-spread adoption of what has been facetiously called the 'washerwoman hair-do', which involved piling the hair on top of the head and arranging it neatly so that it would remain in such arrangement for an indefinite period. Among the esthetic draw-backs to this hair arrangement were the stray locks on the back of the neck which did not conform to the arrangement and were left dangling in a more or less untidy effect. To meet the crying need thus created, an immediate popularity developed for some kind of adhesive material which would affix these stray locks in an upward direction and attach them to the remainder of the upswept hair. To fill this need, a Chicago manufacturer created locks-up hair lacquer pads. These were in the form of a cotton pad impregnated with a lacquer substance which, when brushed upward around the hair-do, increased the tidiness of the arrangement by gluing the hair to the rest of the arrangement. In applying the lacquer pads they necessarily came in contact with the skin and scalp adjacent to the hair.

"This development occurred during war-time when there was a scarcity of lacquer materials, shellac, varnish, resins, and glue. Apparently the first product was entirely successful and created an enormous demand. Subsequent batches of manufacture employed unknown and untested adhesive materials, synthetic resins, etc., and the result of that hasty improvising was that hundreds of women throughout the United States suffered significant injury by reason of the poisonous nature of the resins used, which created a contact dermatitis and other painful and disfiguring complications. As a result of regulatory activity of this administration, the product was eventually removed from the market; but not until a great deal of damage had occurred.

"About 4 years ago numerous complaints were received from women whose fingers had been significantly injured as a result of using lacquers marketed in the form of fingernail coatings. Again the ingredients employed were different kinds of newly developed products related to synthetic rubber and no adequate testing was undertaken prior to marketing the coatings to determine whether they might have any propensity for injury. These products are exceedingly complex organic chemicals, more in the nature of mixtures than specific entities, and the only practical approach to evaluating their properties for harm is adequate tests on lower animals or human beings. Because of the complex chemical character of the ingredients, it was very difficult to determine the precise nature of the offending constituents and it became necessary to regard each batch or lot as an entity unto itself and to undertake individual testing. Again, lack of adequate pretesting and experimenting on the public with unknown chemicals resulted in substantial injury to many users of this type of cosmetic. Finally, by belated study and experimentation, manufacturers were able to produce satisfactory articles without deleterious ingredients.

"During the month of August, 1951, the products of two shampoo manufacturers were found to contain ingredients which are significantly dangerous when introduced into the human eyes. Both of these products employ polyoxyethylene group surface active agents together with a quaternary compound as the active principles of the so-called dry shampoo. The two manufacturers had acquired wide distribution but had received a considerable number of complaints from customers whose eyes had been injured by inadvertent contact with the shampoo material. Pharmacological tests on animals made by this Administration confirmed the dangerous character of the material when introduced into the eye, and demonstrated that the products have the property of producing an opacity of the cornea which impairs the eyesight for a persistent period of time if not permanently.

(*Continued on page 685*)

The Durham-Humphrey Law

THE form in which the Durham-Humphrey Act passed Congress was that in which it had originally been passed by the House of Representatives plus the amendments upon which the industry and the N. A. R. D. had agreed when the bill was before the Senate committee. The bill was reported to the Senate in this form and passed by that body. Then the House of Representatives passed the additional amendments to bring the bill which they had passed into conformity with that passed by the Senate. This made any action by a conference committee unnecessary. The bill became law on October 26, when it was signed by President Truman. The bill enacted was H. R. 3298.

One provision of this act makes it necessary for manufacturers of products restricted to sale on prescription only, to change the prescription legend as it appears on the label. This is for the reason that the new statute itself contains the wording for this legend. Under the Food, Drug, and Cosmetic Act, before it was amended by this act, the prescription legend was provided for in the regulations and therefore the exact wording of such a legend was not specified by the law, but now this is changed. The wording of the prescription legend given in the regulations before enactment of this new law reads:

"Caution: To be dispensed only by or on the prescription of a . . ." with the blank space being filled in with one or more of the words physician, dentist, or veterinarian.

However, the new act provides specifically that such a product is "misbranded if at any time prior to dispensing its label fails to bear the statement 'Caution: Federal law prohibits dispensing without prescription.'" Therefore, on the effective date of the act, April 26, 1952, which is six months after the President signed it, all such statements on prescription drugs must be changed. This means that new labels must be printed for an enormous number of items, or stickers must be made and applied to existing labels. The wording of the new prescription legend specified in the new law, reads:

"Caution: Federal law prohibits dispensing without prescription."

It would be well for the manufacturers not to make any changes until the Food and Drug Administration promulgates the regulations for enforcement of this new law. These regulations will doubtless specify the label changes required in prescription drugs, including the size of type required for the new prescription legend. The regulations will also probably include exemptions from the prescription legend requirement of the law for harmless narcotics such as cough syrups and exempt narcotics. Such an exemption is authorized by the new law in cases where the prescription legend is not necessary for protection of the public health.

There is much discussion regarding the power given by this new law to the Food and Drug Administration to issue a list of drugs which cannot be sold over the

counter. The Food and Drug Administration could issue a list at any time, before or after the enactment of this new law, but such a list does not have the force of law and is merely an expression of the opinion of the officials of the FDA. Any manufacturer is free to label any of his produts for over the counter sale, or for prescription sale only, as he chooses. This was the case before the enactment of this new law, and it is still the case. However, the Food and Drug Administration had the right before, and still has the right to proceed in court against any manufacturer who labels a product in the way which the FDA officials believe is wrong.

The following excerpts from the Senate Committee report should be read with the above interpretation in mind:

"*Prescription drugs.* The bill provides a statutory definition of prescription drugs; it expressly forbids their sale without a prescription; it specifies how they are to be labeled both at the time of interstate shipment and at the time of ultimate dispensing; and it prohibits unauthorized refilling of prescriptions for them.

There are three classes of drugs covered by the statutory definition. The first includes the habit-forming drugs subject to section 502 (d) of the present statute. These are such drugs as the barbiturates. The third class includes all new drugs restricted to prescription sale by effective new-drug applications under section 505 of the present statute. There is no controversy whatever about these two classes. The second class includes any drug which because of its toxicity or other potentiality for harmful effect, or the method of its use, or the collateral measures necessary to its use, is not safe for use except under the supervision of a practitioner licensed by law to administer such drugs.

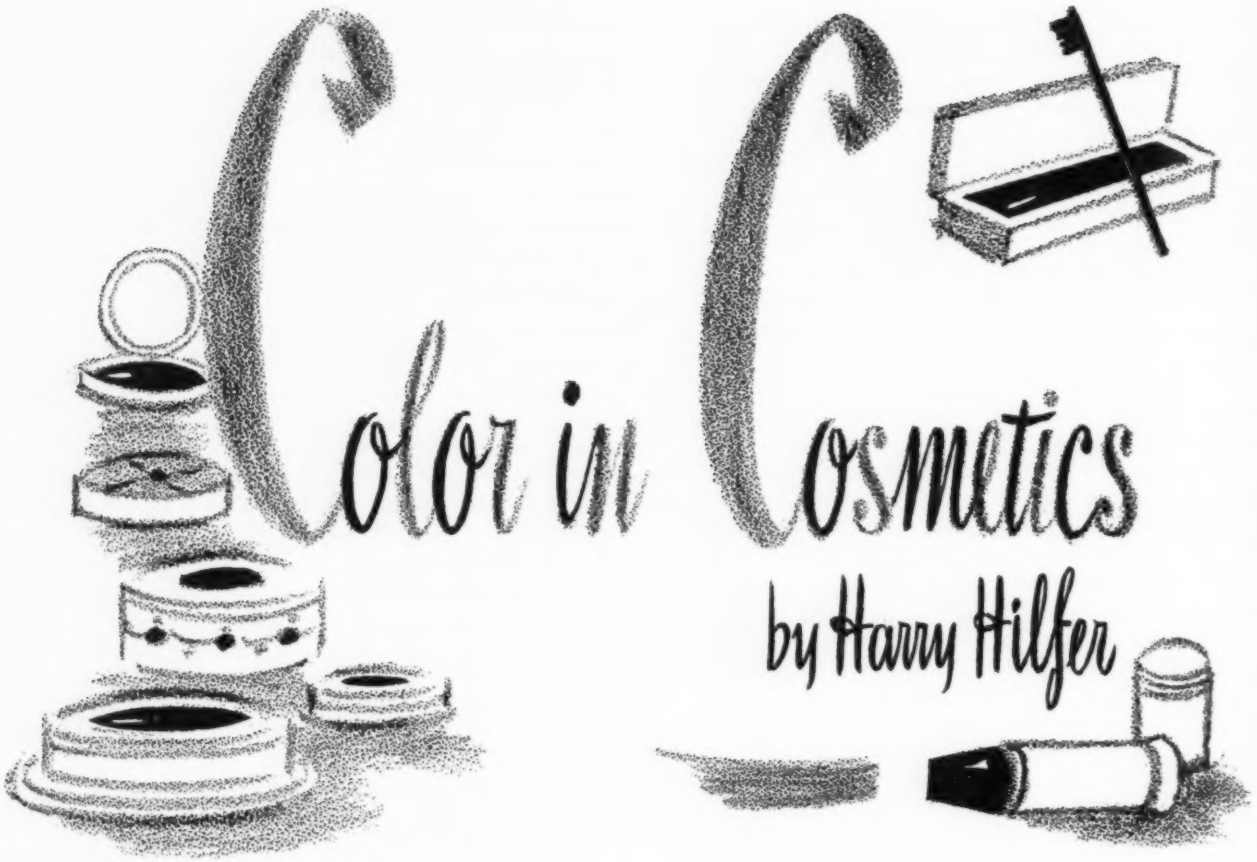
"This definition of so-called dangerous drugs is contained in paragraph (b) (1) (B) of the bill. It is substantially the same as the administrative definition now contained in the regulations issued by the Federal Security Administrator under the provisions of the Federal Food, Drug, and Cosmetic Act. The proposed definition, however, omits the reference too efficacious for use, as well as safe for use, without the supervision of a medical practitioner in order to be eligible for over-the-counter sale. This omission is not intended to mean that the only matter to be considered in applying the definition is whether or not a particular drug is poisonous.

"The word safe, as used in the definition, is intended to have its ordinary meaning. For example, nontoxic drugs like quinidine sulfate, intended for heart disease, or penicillin, for infections, are not safe for self-medication because their unsupervised use may indirectly cause injury or death. The language of the definition clearly shows that toxicity is only one factor to be considered by the courts in determining whether a particular drug is safe for use without medical supervision. The definition requires the court to consider also other potentialities for harmful effect, the method by which the drug is used and the collateral measures that may be necessary in order to use the drug safely. When this language is given judicial interpretation consistent with the over-all purpose of the Federal Food, Drug, and Cosmetic Act to protect the public health it will effectively restrict to prescription sale all drugs that require professional supervision for their use.

"In order to give this general definition a more precise meaning so that it may be applied with greater uniformity by the drug trade the Administrator can exercise the authority he has under section 701 (a) of the Federal Food, Drug, and Cosmetic Act to issue interpretative regulations. It is to be understood that the inclusion of the statutory definition does not, of course, in any way derogate from the Administrator's authority to interpret and enforce the definition through the issuance of any regulations necessary or appropriate to protect the public from indiscriminate dispensing of drugs over the counter when they may be unsafe for use without the supervision of a practitioner licensed by law to administer such drugs."

Effect of Committee Amendments

"The other two amendments were proposed by the combined drug trade in a statement signed by the National Association of Retail Druggists, the American Pharmaceutical Manufacturers' Association, the American Drug Manufacturers Association, and the Proprietary Association. *(Continued on page 689)*



Color in Cosmetics

by Harry Hilfer

COSMETIC coloring agencies may be divided into several different categories and their characteristics may be judged from these categories. Hair dyes which comprise a large portion of the market will not be discussed in this paper since they are special cases and therefore a subject best treated by itself. Aside from these the colors used in the largest dollar volume are perhaps those used in lipstick and rouge manufacture, particularly the lipstick colors.

Women may be fickle about the choice of a lipstick. Indeed, many surveys dealing with their buying habits indicate that they will change brand preference and certainly shade preference at the slightest provocation. Any promotional scheme involving lipsticks seems certain of success in selling the first lipstick, because of this fickleness, but the fact remains that though she may dispense with the use of all other cosmetic preparations a woman will always use a lipstick. The colors therefore are always being consumed for this purpose and at the present time there does not appear to be any indication of abatement.

Lipstick colors may be divided into two categories—the bromo acids—whose presence is responsible for the stain imparted to the lips and the insoluble lakes, whose presence in the applied film is responsible for the "flashy" red shades which are associated with lipsticks. The "bromo acids" are derivatives of fluorescein, different nomenclatures being applied dependent upon their degree of halogenation. All these dyes when properly purified are permitted for use in lipsticks ranging from the chlorinated to the iodinated and including the brominated. The brominated fluoresceins seem to be the most popular, the largest single "bromo acid" sold being the tetra bromo fluoresceins. Di Brom fluorescein is popular for stains on the orange side, while the tetra bromo tetra chloro is capable of the most intense bluish red stain. In this connection it should be noted that the introduction of halogens into the phthallic anhydride portion of the molecule exerts a potent force in increasing the intensity of the stain produced. Actually, a di brom, tetra chlor fluorescein where each of the two bromine atoms is placed on each of the two resorcinol rings in the molecule with the four chlorine atoms on the phthallic acid ring, should produce a much more powerfully staining orange than is now possible with di bromo fluorescein.

The difficulties which may interfere with the commercial development of such a product, however, lie in the difficulty and cost of preparing data for the necessary governmental certification of a new dye.

Also on the certified list are two colors not available commercially but owned and produced by one of the large cosmetic manufacturers, for their own use. These dyes contain a carboxy grouping in the resorcinol groups and are therefore closely associated to the fluoresceins chemically, but with the added benefits—according to the manufacturers—of an increased staining propensity because of greater solubility induced by the carboxy groupings, and a lesser tendency towards irritation also induced by the presence of these groups.

The use of erythrosine or tetra iodo fluorescein is minimized because of its greater cost but is also certified for use as is the di iodo fluorescein.

The lakes are the major color portion of most lipstick formulae, since they are insoluble in the lipstick medium and therefore capable of reflecting the greatest portion of the light striking them rather than transmitting the light. They consist generally of the dyestuff precipitated as an insoluble metallic salt. The salts include calcium, barium and aluminum cations among others with an increasingly greater number going over to the aluminum salt. Brighter colors could be attained by the use of the lakes of heavier metals but their use is prohibited because of their inherent toxicities. Some of the brightest pigmented dyes I have seen were tungsten lakes and though this brightness may be desirable in a lipstick, the possibilities of toxicity because of the presence of tungsten would bar its use.

The lakes are the major color constituents of rouges as well since they are so inherently bright. They are not as stable against light as inorganic pigments are, however, and a noticeable fading is noticed on exposure when the concentration is lowered to the face powder range. In face powders the primary color constituents are therefore the iron oxide pigments. Some lakes are also used in this connection, but I have personally found that the face powder does not seem to retain its shade as well when they are used and that their presence serves to deepen the shade or that part of it due to the lake if they should be moistened—a possibility during hot humid weather.

The iron oxide pigments range from the ochers to the deep browns which border on the red. Differences in the shadings are caused by the degree of hydration of the pigments as well as other elements being present. They are not as bright in appearance as are the lakes, indeed by comparison they exhibit something of a gray cast, but I am convinced that they are capable of answering any problem associated with face powder coloring transmissal to the face. The so called red oxides are capable of transmitting a more intense red than would be desirable for skin tones while the umbers when used sparingly are capable of imparting any of the gray neutral tones desired. These same colors may be used in the pressed face powders and make up bases. A useful adjunct in this connection is the employment of titanium dioxide as an opacifier so that reflection of light by the color pigments may reach an optimum.

There is one cosmetic category in which all synthetic organic colors or pigments are barred. These are the preparations used around the eyes which include eyeshadow, mascara and eyebrow pencil. The choice of colors, therefore, narrows down to the iron oxides, chrome green, ultramarine blue, and any of the various carbon blacks.

So far in this article it has been shown where inorganic pigments have been superior to the organic lakes because of their greater stability. In order to complete the record I should also add that the same iron oxide pigments should not be used in lipsticks because their presence could cause a rancidity deterioration. Most lipsticks have castor oil in their formulation as an integral part of the formula. Though castor oil of all the fixed oils containing an ethylenic linkage, resists rancidity to an extraordinary degree—the introduction of a pro-oxidant such as an iron compound could and often does cause incipient rancidity to take place because of peroxide formation induced by the catalytic effects of the iron present. Good practice, therefore, calls for the elimination of any such agencies from the formula even though the brown tones they impart may appear desirable for certain types of shades.

The next category of colors are the water soluble dyes used to impart a color to perfumes, lotions, and shampoos. There are a large number of these compounds certified for use and they all suffer from the same defect in varying degrees, namely their inability to withstand strong daylight for an indefinite period of time. The only thing the manufacturer can do about such a situation is to try to keep them from being exposed before their sale to the consumer takes place. Actually these colors are easily used, since the amounts needed to attain most desired intensities is so low. In common practice a 0.5 to 1 per cent solution of the color is first prepared and proper aliquots introduced into the final formulation.

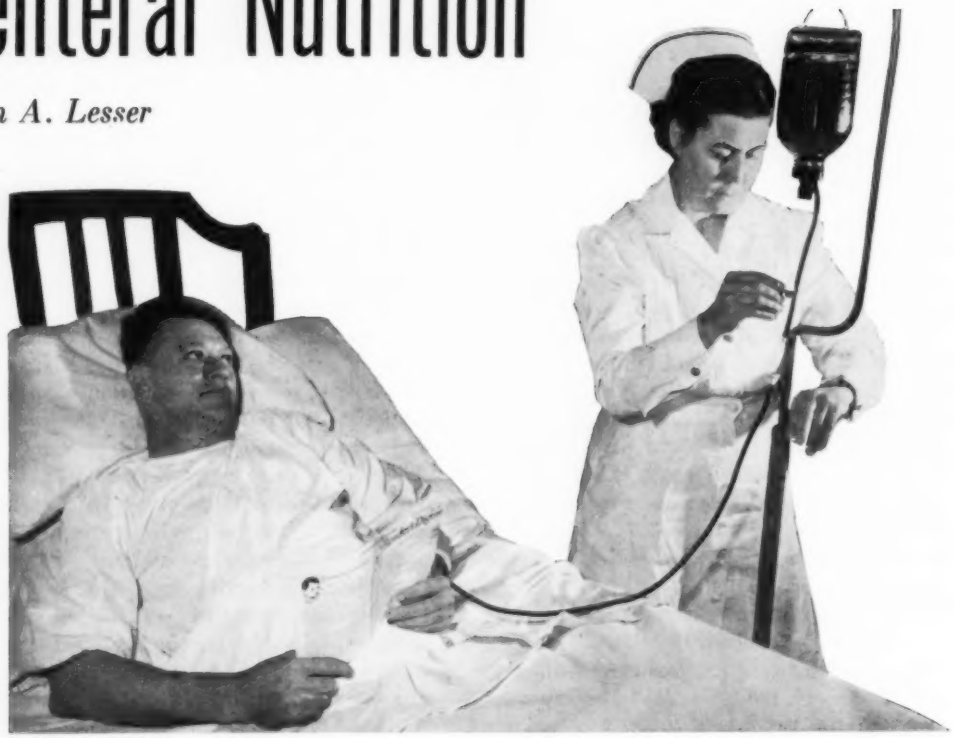
Many of these same water soluble dyes are being used in hair rinses designed to impart a color to graying hair and to accentuate the shade of the hair generally. These dyes are used in conjunction with materials used to induce a low pH such as citric or tartaric acids. Obviously colors whose solubility is dependent on an alkaline salt could not be used since they would be precipitated, but those containing sulfonic acid groupings perform quite well. By proper choice of the colors almost any desirable shade could be attained. The method of application depends on subjection of the hair to an aqueous solution of the acid-color mix and a subsequent rinsing with water. The dye left on the hair is in actual chemical combination with it but easily removed by soap and water.

In the same category may be mentioned the increasing use of another type of material, which though by definition is a colorant, is not thought of as such generally. These are the "brighteners," which have been in use in textile detergents as a means of hiding the yellowing of fabrics which seem to come with

(Continued on page 685)

Parenteral Nutrition

by Milton A. Lesser



BLACK STAR PHOTO

THE parenteral administration of nutrients is an important, often life-saving procedure. Although the giving of parenteral fluids has become almost commonplace in modern medical practice, it is only within the last few years that it has become possible to provide total nutrition via this route. Today, when it is required, a physician can administer any one or all of the six broad classes of nutrients, including water, minerals, vitamins, carbohydrates, proteins and fats.

The intravenous administration of water, salt and dextrose has long been a dependable means for providing fluid, electrolyte and energy. Within the last decade, the use of water-soluble vitamins and various protein preparations has amplified the adequacy of parenteral nutrition. Preparations of the fat-soluble vitamins suitable for injection have also been made available. Particularly noteworthy, however, is the work, now going on, which indicates that the addition of fat to infusion mixtures will become an established procedure.

Parenteral nutrition may be referred to as parenteral or intravenous feeding, as intravenous alimentation, or even as needle feeding. No matter what the terminology, improvements in the procedure have extended its usefulness and range of indications. As remarked by Elman,[1] an authority in this field, the use of parenteral fluids and food extends the indications for surgery, facilitates surgical procedures, minimizes postoperative complications, and permits rest without starvation in non-surgical conditions of the gastrointestinal tract. He notes that parenteral nutrition for maintenance is always of limited duration and it is used only when the gastrointestinal tract is temporarily out of commission.

Similarly, Stare and his colleagues[2] have stated that parenteral nutrition is desirable whenever the gastrointestinal tract cannot or should not be used either completely or partially. From their own wide experience they have found that the indications for parenteral feeding include the following: (a) Patients unable to take any fluid or food by mouth because of vomiting or obstruction, (b) Patients in whom utilization of orally ingested food is unsatisfactory, as in patients with severe diarrhea (e.g. ulcerative colitis, sprue, or infant diarrhea) or those with various types of intestinal fistula, (c) Patients in whom oral ingestion

of food is deleterious, as, for example, in cases of peritonitis or in those in whom complete rest of the gastrointestinal tract is desirable, (d) Patients with severe anorexia and in whom tube feeding causes additional psychic trauma or vomiting, diarrhea, or distention, (e) Patients in whom the time available for correction of nutritional depletion is limited, as might be the case in the pre- and postoperative treatment of extremely malnourished individuals, such as is seen in many types of cancer, and (f) Patients in whom caloric intake is particularly important to prevent destruction of body protein and the accumulation of nitrogenous waste products, as would occur, for example, in uremia.

Pointing out that there are certain contraindications to total intravenous alimentation, Bigham, Mason and Howard[3] stress that this procedure is not recommended without positive indications. They note, however, that in operations for carcinoma of the bowel, in gastric resections, and when intestinal fistulae are present, pre- and postoperative parenteral feeding has proved to be of great value. The patients so treated have been surprisingly free of postoperative distention and discomfort. This method of feeding has been used in certain types of urological operations, where distention is a notorious postoperative complication, with very gratifying results. With hemorrhoidal operations, where the surgeon desires absence of bowel movements for several days, patients have been fed in this manner without hunger or abdominal discomfort.

Also important with respect to indications for parenteral feeding is the observation made by Cohen and Dubow.[4] They stated that complete and continuous parenteral replacement therapy is probably more frequently called upon in pediatrics than in any other branch of medicine or surgery. This view is emphasized by the number of recent reports[5,6,7] on the importance of fluid therapy in infancy and childhood.

In the opinion of Young and McGowan,[8] correct parenteral fluid therapy requires an adequate and complete diagnosis of the condition, an understanding of the disease process, and due consideration of the basic requirements of the individual patient. These and other workers[1,3,5] have suggested various basic formulas by which it is possible to calculate the daily parenteral diet and allow for individual variations with respect to the amount and kind of injected nutrients. This point is well indicated in Bodansky's[9] observation that it is not possible to lay down precise mathematical rules for the administration of parenteral fluid therapy. It is only possible to offer approximate rules which should be used as guides to therapy but which may be modified in accordance with the progress of the patient.

Moreover, views with respect to basic parenteral formulations must be modified according to newer discoveries and developments. This has occurred, not only in the case of protein preparations and fat emulsions, but also in the apparently well established sugars and salts.

Acute diarrhea, diabetic acidosis, pyloric stenosis, severe burns, and other conditions require parenteral replacement of water and some electrolytes.[5] Fluid and electrolyte may be provided in the form of physiological salt solution. Where necessary, more elaborate solutions, such as Ringer's or Hartman's (lactate-Ringer's), may be injected to provide additional salts and minerals.[4]

Studies made during recent years have shown the important role played by potassium in the body.[9] Since it has been found that potassium deficiency may be attended by grave consequences, the administration of potassium salts often becomes an important part of parenteral fluid therapy.[10,11,12] However, when using potassium chloride as an intravenous aliment, Bigham and his associates[3] stress the need for caution because elevation of the potassium concentration in the serum is fraught with danger, especially to the conduction mechanism of the heart.

Where energy is needed, it is generally provided in the form of dextrose (glucose) solutions. A 5 per cent solution is customarily used. This concentration is isotonic and is not likely to introduce the dextrose at a faster rate than it can be cleared from the blood. Otherwise, hyperglycemia results with loss of sugar in the urine.[13] A 5 per cent solution of dextrose in physiological saline is also in common use. In addition, hypertonic solutions containing 10 per cent or more of the sugar are available for intravenous administration.

Although dextrose is the most commonly used nutrient in intravenous therapy, it is recognized that its value as a source of calories by this route is somewhat limited.[14] Recognition of this fact has led to attempts to provide more calories by parenteral means in a more efficient manner. Among the materials which have aroused interest for this pupose are invert sugar solutions. Invert sugar is prepared by hydrolysis of sucrose and is composed of equal parts of dextrose and fructose (levulose).

Primarily, it was Weinstein's[15] work that attracted attention to invert sugar as a possible source of parenteral calories. In his studies, ten patients in the fasting state received a liter of 5 per cent invert sugar in isotonic saline. The material was injected at an average rate of 1.5 Gm. per kilogram of body weight per hour. Under these conditions, less than 1 per cent of the infused sugar was lost in the urine. This was in marked contrast to the 6 per cent loss that followed the administration of an equivalent amount of glucose at the slower rate of 0.78 Gm. per kilogram per hour. In later work,[16] 12 patients were treated with 10 per cent solutions of invert sugar. The material was administered at the same average rate of 1.5 Gm. per kilogram per hour with a urinary loss of less than 2 per cent. These findings indicated that, because it could be administered in a shorter time and with less fluid, invert sugar is superior to dextrose as a source of

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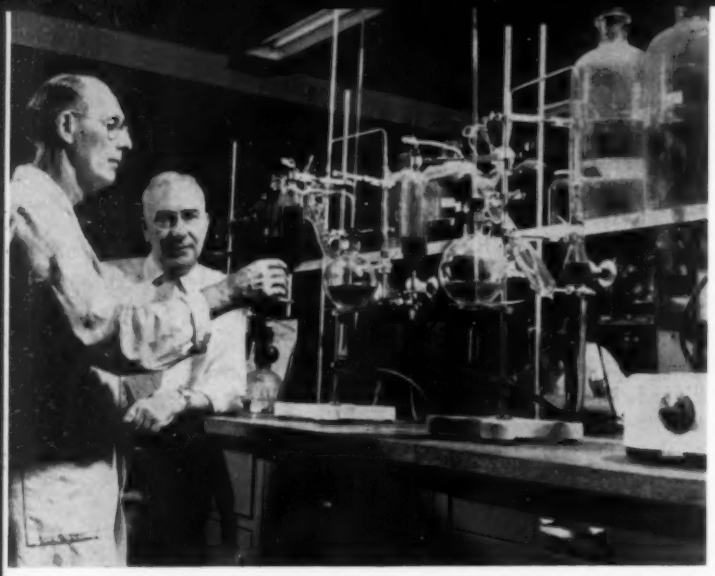
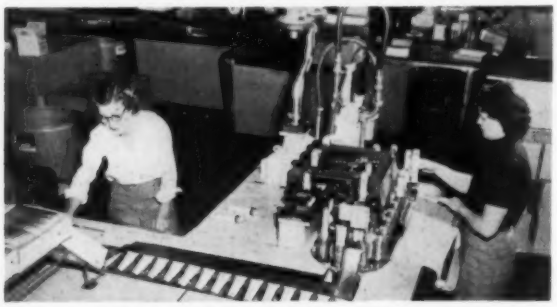
Colgate's New Cosmetic Plant



L. K. Whyte, left, laboratory head, and assistant, making test in modern laboratory on third floor, equipped for testing all incoming raw materials and each of outgoing finished products.

A different view of Colgate's modern industrial laboratory.



Colgate Brushless Shaving Cream on one of 13 assembly lines.

Finishing operations area on 2nd floor, providing work room of unique construction without pillars. It is 75' wide, 325' long.

LAST MONTH Colgate-Palmolive-Peet Company officially opened its new Toilet Articles Plant just completed in Kansas City, Kansas. The new structure is said to be "the finest, most up-to-date and truly functional plant for its purpose anywhere in the world."

Construction of the vast four-story building was begun in 1949, reaching the completion stage two years and four million dollars later. Designed by engineers of the Colgate-Palmolive-Peet Company and executed by Albert Kahn Associated Architects & Engineers, Inc., the new plant has incorporated every modern innovation and device necessary to achieve the ultimate in functional planning down to the very smallest item.

The construction was prompted largely by a toilet articles sales increase of almost 300 per cent from 1940 to 1950, and the desire to provide the area west of the Mississippi to the Continental Divide with faster and better service.

Situated on a plot of some 20 building lots at Kansas Avenue and 17th Street, the building measures 165 feet in width, 365 feet in length, and totals 193,000 square feet of working area. Exterior of the buiding is of Speed Wall tile (the first building of this type in the Kansas City Area)—with the emphasis on long sleek lines, rounded corners, and no exposed beams or columns. Focal point of the exterior is the main entrance, highlighted by a 20 by 34 foot picture window, said by the architects to be the first of its type ever to be installed.

Cleanliness and ease of maintenance have been stressed in the design of the interior. "Show Place" of the building is the finishing department, which is

located on the second floor. Perfect freedom of operation has been achieved by eliminating all supporting pillars from the floor area of the finishing department which measures 325 feet long and 75 feet wide. The room has a total width of 113 feet, allowing for the columns on the sides just under the edges of the arched ceiling.

Additional advantages which have been included in the finishing department are: complete ventilation through special filters (dry oil) to prevent dust in the area, two-speed ventilating fans to allow more complete air changes per hour during the summer than the regular turnover for other seasons, fluorescent lighting louvred fixtures which are flush with the ceiling, a 12,000-pound automatic elevator to the warehouse below on the first floor, and electric trucks to bring out supplies to the lines as needed.

The tile flooring of the finishing department room was tested for a year at the Colgate-Palmolive-Peet Company plant in Jersey City before it was included in the plan. Metal pan acoustic ceiling with baked enamel surface was selected for the ceiling, and vitreous tile for the walls, as used throughout the building—all of which give an additional boost toward the ultimate in pleasant environment.

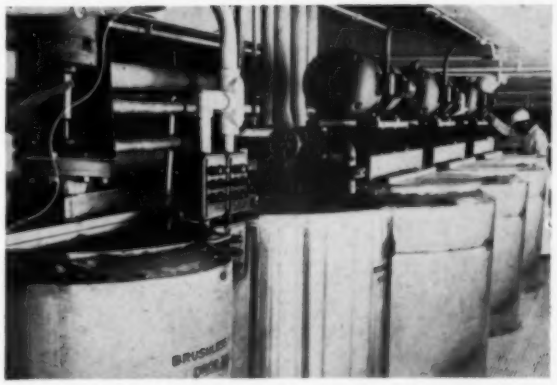
The products slated to be manufactured at the Kansas City plant to date are: Cashmere Bouquet Talcum; Colgate Dental Cream; Colgate Tooth Powder; Colgate Ammoniated Tooth Powder; Colgate Shave Cream, Brushless and Lather; Palmolive Shave Cream, Brushless and Lather; Halo Shampoo, Lustre-Cream Shampoo and Veto Deodorant.

To test all incoming raw materials and packing supplies and all outgoing finished products, a laboratory completely modern in every detail, has been constructed on the third floor at the north end of the building. Besides a full complement of equipment for analyzing and testing purposes, the laboratory will make use of an entirely new feature—a pneumatic tube dispatching system which will carry samples from various points over the building to the laboratory for testing, thus reaching the lab in a matter of seconds rather than being carried by hand.

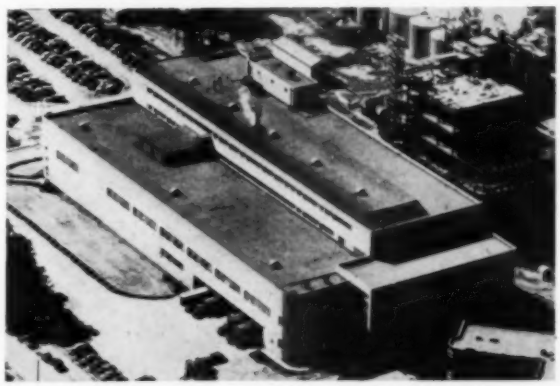
An over-all breakdown of the building shows warehouse areas on the first floor, with loading wells for eight trucks on the East side and railroad facilities for six or eight cars on the West side; finishing operations on the second floor; finished product storage tanks, laboratory, etc., on the third floor; and product making operations on the fourth floor which was constructed with high ceilings to allow for a partial mezzanine.

Besides the light, airy plant offices, the building also houses a number of other features for company employees—including modern locker and rest rooms on each floor, and a modern lunch room.

Manufacturing crews obtained and trained to produce each product separately in recent months now have the plant's 13 lines of items going full blast. The total number of employees will reach 150 when the plant is in full operation.



View of Plant's fourth floor, where mixing tanks are situated.



Airview, Colgate Kansas City plant. Operations began Oct. 11.

Finishing operations, assembly line, for Dental Cream packages.

1st floor of Toilet Articles plant, used as warehousing area, served on one side by accommodations for 6 to 8 railroad cars, and on the other side by a loading platform for eight trucks.

EWING GALLOWAY PHOTO

The Retail Price Problem

THE WEAKENING of fair trade as the result of the Schwegmann decision which invalidated interstate price maintenance so far as non-signers of fair trade contracts are concerned, is opening up the question of pricing in a very general way. After all, price maintenance as effected through fair trade has only applied to branded merchandise, and it has not been applied to the large majority of goods in this category moving to consumers. For example, fair trade has never been utilized in the food industry. Also it has been repeatedly stated that less than 10 per cent of the goods sold by the large department stores has ever been price-fixed by means of fair trade agreements.

Nevertheless, fair trade has been of extreme importance to manufacturers in this industry, and particularly to manufacturers who might be considered inconsequen-

tial from the point of view of the national welfare as a whole. Without the protection to their trade-marks afforded by an effective price maintenance, the businesses of these manufacturers is seriously threatened by power of retailers to sell the goods of these manufacturers at any desired prices. It must be appreciated that any manufacturer, large or small, is vulnerable to this sort of serious damage through the action of predatory price-cutters, but the smaller the manufacturer, the less he has to fight back with, and the more quickly can such activity just about completely destroy him.

However, the road ahead for a return to conditions which existed before the Schwegmann decision is a very rocky one. Until Congress enacts a law validating control over non-signers of fair trade contracts in interstate commerce, fair trade will be practically a dead number subject to continual weakening influences. As has been clearly indicated thus far, the courts in various states are taking their cues from the U. S. Supreme Court and are not prone to act as swiftly or as surely as they previously did in granting injunctions against price-cutters. As a matter of fact, in Cailfornia a State judge refused an injunction in the case of a product made, shipped, and sold within the State. This was for the reason that the product in question was also sold in some other states, and, the California judge ruled, that caused any sale of the product to have an effect upon interstate commerce, and control of such commerce was up to the Federal Governments. Therefore, he ruled that relief could only come from Congress.

As the battle gets under way for a new law in Congress to bring the conditions back to the conditions which existed before the Schwegmann decision was handed down, pricing is being discussed from various other angles than that of maintenance through fair trade. And for the reason that there are many clear thinkers who believe that Congress will not act to validate fair trade unless another serious depression should change the entire mood of the country and of Congress in this regard.

One of the angles from which pricing is being discussed is that of the unfair trade acts which are in effect in upwards of thirty states. These laws make it illegal to sell goods below the cost of the distributor. Therefore, in the states in which these laws are in effect, a distributor can forego his profit to meet or overcome competition, but he can go no further. If a distributor would lower his prices in any of these states, he must find some way of reducing his cost of doing business since the Robinson-Patman prevents him from getting any undue advantage in his purchases of goods. Thus, in these states, distributors are prevented, to a marked degree, from building up their businesses by knocking out competitors by means of ruthless price-cutting. The tobacco interests, among others, are particularly interested in laws of this type for the reason that, while they are not interested in fair-trading the prices on their products, and distributors do not demand such action, they do not want to be faced with disastrous price-cutting which would raise havoc with their distribution. After all the grocery trade is the largest seller of cigarettes and the grocery trade is not interested in fair trade. Then, too, a state is more likely to be willing to enact a law of this type than they are to enact a fair trade act. With fair trade acts not of uncertain validity, it would seem that more states would now enact the unfair sales acts in addition to their fair trade acts.

The Federal Government is extremely active in the price picture for various reasons and much of this activity will doubtless come through the actions of the Federal Trade Commission and the Department of Justice. In fact an indictment has been obtained in the Pittsburgh Federal Courts against the county pharmaceutical association, wholesale druggists including McKesson & Robbins, George A. Kelly Company, Shipley, and against chain stores including Sun-Ray and Rand's, for conspiracy to maintain prices in that area. Activities are said to be refusal to sell retailers who refuse to agree to maintain prices. The Department of Justice is studying similar activities in a number *(Continued on page 695)*

View of recently expanded laboratories. Top floor has chemical control laboratories and manufacturing units; 2nd floor, filling and finishing operations; 1st floor, executive and administrative offices.

Stearns in Australia

by W. R. Kerr

PRODUCTION EXECUTIVE

FREDERICK Stearns & Company Division of Sydney, Australia, have now completed a building extension program commenced in 1948, to take care of their expanding production requirements for the Australian market. This company is a division of Sterling Drug Inc. of New York, and produces a wide range of medicinals, including Nyal medicines and Stearns medical specialties.

The new building covers an area of 40,000 sq. ft. and consists of a four-story reinforced concrete structure of mushroom-type construction with columns at 25 ft. centers. The windows were specially designed and fabricated to give a maximum of light and ventilation on all floors. The entrance is faced with sandstone with aluminium alloy entrance door and screen glazed with plate glass.

The new building was so designed that the four floor levels were identical with the old building, so that by demolishing the entire facade of the original building, uninterrupted access was possible between the old and new structures, and gave a total floor area of over 80,000 sq. ft. Additional floor space was gained by all departments allowing for the general layout of the plant to be maintained, thus saving costly removal charges.

In this multiple floor structure, all consideration has been given to transport and handling of goods and products, and all associated departments, and goods required by those departments have as far as possible been located adjacent to one another.

In the general layout, all manufacturing operations with one exception have been located on the second or top floor. The only exception being Powder Manufacturing and Filling which has been changed to an isolated section of the plant. This change was made firstly to prevent dust contamination, and secondly for the reason that supplies of dusty ingredients and containers could be stored adjacent to manufacturing operations.

Adjacent to the manufacturing area are the control, experimental and bacteriological laboratories, the ampoule preparation and filling rooms, as well as the offices

Control laboratory with 4 individual benches for chemists, and specialized apparatus benches at side and end. At far end are offices of technical director and manufacturing superintendent.

of all technical officers of the laboratories. This arrangement allows for close collaboration between all technical officers of the company at all times.

The manufacturing divisions are well equipped to produce a wide range of pharmaceutical and toilet products. There are separate sections, each under the direction of experienced and qualified personnel for the production of liquids, tablets, ointments, extracts and powders. Each section is equipped with all types of modern equipment and manufacturing aids and virtually all units have been individually motorized. All large manufacturing tanks have their own mechanical stirrers, water supply and drainage facilities for the efficient washing of the tanks. About 75 per cent of general liquid tankage, vacuum stills, steam pans and measures are fabricated from polished stainless steel.

All formula ingredients are weighed and double checked for identity and weight or volume, in a centrally situated dispensary before issue to the manufacturer.

On the first floor is located the general finishing department, carton and label stock, bottle wash, cafeteria and amenities. In the layout, the bottle wash, carton and label stock, are located along one side of the building, supplying all bottles, labels and materials etc. to the filling and finishing departments, which are adjacent.

Filling and finishing is carried out by conveyor production, and approximately 85 per cent of all products are finished by this method on eight mechanized production lines. On these coneyors, mechanical aids such as mechanized labellers, multi-head vacuum fillers, motorized cap tighteners, tube filling and crimping machines, powder wrapping machines and vacuum powder fillers have been installed. Two semi-mechanical production lines have been installed, each fitted with twelve head vaccum fillers, automatic screw cappers and labelers equipped to handle bottles from 3 fl. oz. to 16 fl. oz.

The filling department is situated on the floor immediately below the liquid manufacturing area and in most cases, liquids flow by gravity from the manu-

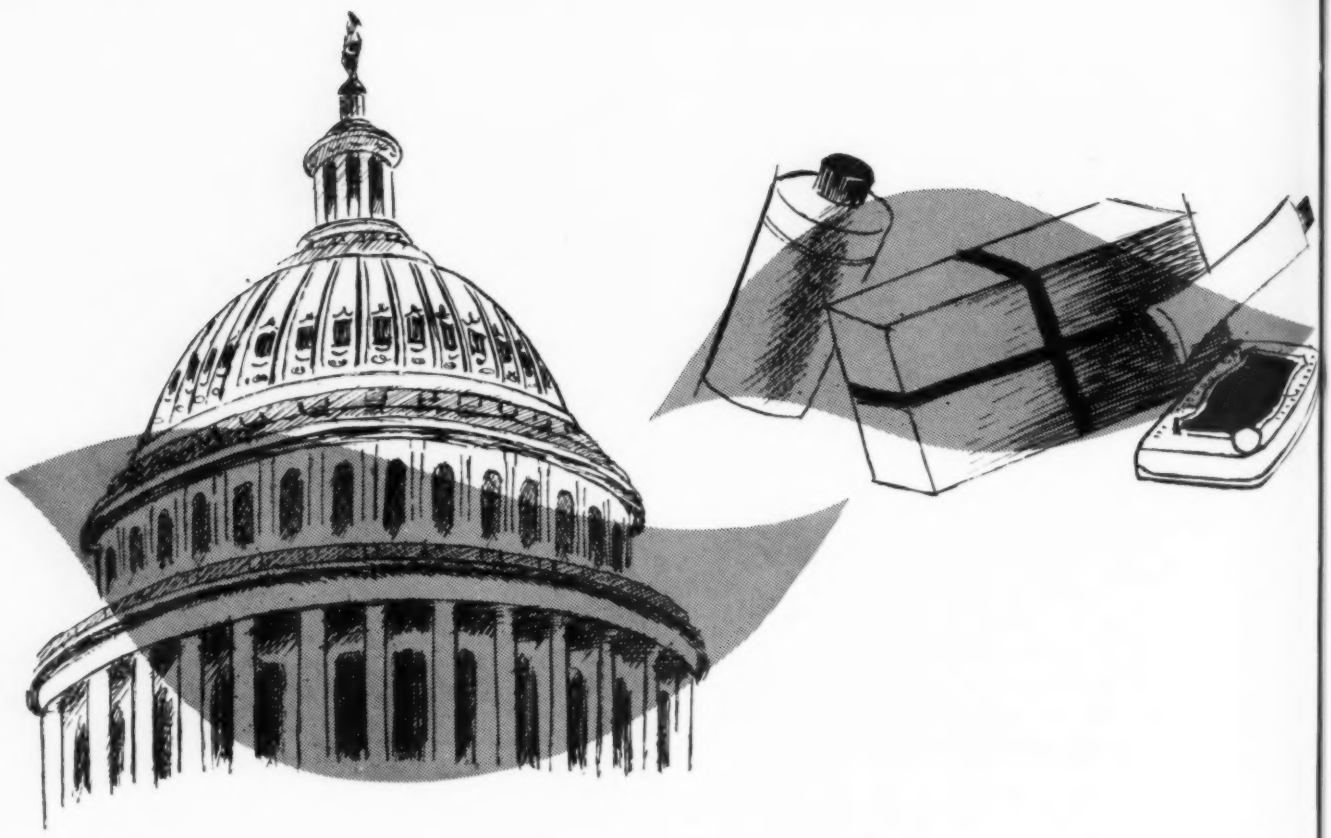
(Continued on page 684)

Ampoule filling room (background) and preparation and sterilization room. Autoclave and hot air oven are located on right.

Complete operation of production line. Bottles are placed on stainless steel slides from crates, and carried by the slide or conveyor belt through each of the stages of filling and finishing.

Coating pans, each having capacity of 150,000 5-grain tablets.

View of general tankage area showing 2 of a battery of 550-gal. tanks, each equipped with mechanical stirrers and water supply.



Supplies In Defense Economy*

by Dr. D. L. Yocom, Jr.

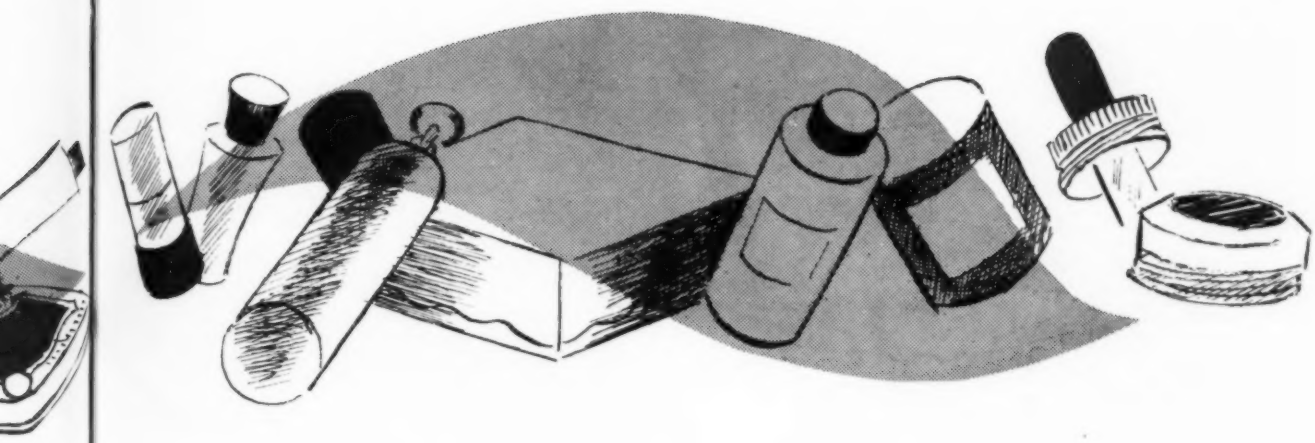
PACKAGING BUYER AND PRIORITIES
ABBOTT LABORATORIES.

BY THE time World War II ended, due to the efforts of the members of the drug and pharmaceutical industry through associations and individually, and good representation by Fred Stock, now with Pfizer, Mr. McManus, John Batson, now with Parke Davis, and many others, some of whom have returned to industry while others remained permanently with the government, the importance and essentiality of the drug industry was well recognized, and our needs were considered on that basis.

After a lapse of approximately five years, we returned again last Fall to consideration of priorities on some of the items we must use, both in packaging and maintaining our plants. It was most disturbing to me and to my company when I reported that after visiting Washington last October, I was told almost everywhere that essentiality or importance of any industry was of no consequence, and materials were to be provided only on a first-come first-serve basis. I was told this by people handling aluminum, steel, stainless steel, chemicals, plastics, rubber, paper; and even the Drug Section of the Chemicals Division itself admitted that they had difficulty in selling the importance of our industry in the general economy and welfare.

Fortunately for all of us, and I think even more for the civilian population in general, the prodigious production capacity of this country was producing enough

*Presented before Packaging Institute, Oct. 25, 1951.



so that we never did get to a point of real hardship on most materials. We were inconvenienced, and some products were delayed, and if the trend toward total war which appeared likely in the late Fall of last year should have continued, our industry might have been seriously hampered.

The most important point that I want to make is that this industry, through its associations and individually, must see to it that in any emergency the importance of uninterrupted production of drugs and pharmaceuticals is fully recognized by all levels of administration of any government agency, so that we can continue with the job at hand of saving lives and easing pain and maintaining the full working efficiency of our civilian population. This should be accomplished without unnecessary frustration by people who are totally unfamiliar with our industry, what we are trying to do, or the way we must operate our plants.

I want to pay full tribute to Leonard Weirich, who has just been appointed Chief of the Drug and Cosmetic Section, Chemicals Division, of NPA, and who previously acted as the government representative in that division under Joe Bates and then Norman Storm. Mr. Weirich, who graduated with a degree in pharmacy in California, spent two years with John Wyeth and 17 years with the Upjohn Company. He came to Government Service during World War II in control of exports. In 1948, he came into the Commerce Department and into the N.P.A. Chemicals Division at its inception. Thus, he is now in the fortunate position of not only being familiar with the drug industry, but also with procedures in government, and I believe he has done an excellent job of establishing the importance of this industry in N.P.A. considerations.

The change in thinking in NPA from last October was gradual but consistent, and by March of this year, while no *action* had been taken to protect our essential industry, some sections would at least admit that something should be done. This trend continued until, by late August of this year when I was last in Washington, it appeared to me *that* the essentiality of the drug industry had been thoroughly established. The NPA has conceded that they cannot have their cake and eat it, and, therefore, must allot most important uses first, with others to come later, when any item is in less than overflowing supply. From what I can learn, most of us in this industry appear to be functioning reasonably smoothly again. In part, this is due to a lessening of the fears of war, which resulted in a softer supply market during the summer and a more abundant supply of many of the things we use. However, on those items still critical our requests are being considered on the basis of whether we *must* have them to produce necessary drugs, rather than for any other less realistic reason. It is my opinion that even if we should be involved in a full-scale war in the near future, the groundwork has been laid so that we will

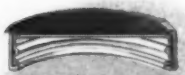
(*Continued on page 689*)

"No wonder my cream keeps so *Soft* and *Fresh!*"

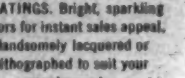
Yes, it's MeritSEAL'd ...and that means POSITIVE PROTECTION, Miss!

The women who buy products capped with MeritSEAL love it—for its smooth, trim lines . . . smart, glistening colors . . . and its distinctive look and feel of luxury. MeritSEAL's safe, efficient seal keeps their cosmetics fresh and moist as new. Everyone who knows MeritSEAL agrees. Cosmetic manufacturers know how it compliments and enhances their product. Production men know it can be depended on for trouble-free performance on the production line. Behind-the-counter saleswomen praise the eye-catching displays—and the fast sales—they can make with products using MeritSEAL. See for yourself how really attractive and efficient MeritSEAL is. We'll be glad to send full information and samples. Simply state your color preference and sizes needed for your product.

HARD, SCRATCH-RESISTANT COATINGS. Bright, sparkling colors for instant sales appeal. Handsomely lacquered or lithographed to suit your requirements.



PATENTED THREAD DESIGN. Spins on freely. Forms a perfect-fitting seal, but won't "freeze" to container. Only MeritSEAL has this exclusive design.



SIMPLE, EFFICIENT CONSTRUCTION. Liner and thread are inserted into a sheet metal shell. The thread holds the liner in position, and the lower edge of the shell locks the thread in place.

RANGE OF SIZE, CHOICE OF COLORS AND LINER MATERIALS. 12 standard sizes ranging from 48 mm. to 100 mm. Special sizes can be ordered. Choice of various liners to suit your needs.

CROWN CORK SPECIALTY CORP.
Division of Crown Cork & Seal Company

CROWN MeritSEAL—

Main Office: St. Louis, Mo. • Chicago: 401 W. Ontario Street
New York: 60 East Forty-Second Street • Western Representative: Western Crown Cork & Seal Corporation . . . San Francisco . . . Los Angeles

Packaging and Selling

Uneasy Research

Cosmetic manufacturers who have been watching this recent remarkable period in medical research and the rapidity with which new therapeutic products, which so often completely upset traditional medical thinking come into general use, are impressed with the fact that the human skin remains one of the most mysterious organs of the human body, about which there is still so little known. From time to time there penetrates into the cosmetic business an uneasy feeling that out of all this advanced and accelerated research, something, somewhere will be discovered which will have as drastic an effect upon present cosmetic facial treatments as some of these new drugs are now having upon medical practices of ten or twenty-five years ago.

It might be that this uneasy feeling has been stimulating the cosmetic industry into more active research and in another direction has been a factor in urging the industry to market an increasing number of specialized treatment creams.

One of the earliest creams of this sort is, of course, the hormone cream. The makers of these creams, after a long up-hill fight against prejudice, misinformation and in some quarters sincere doubt, have now progressed to a point where these creams are generally accepted by the trade, the retailers and a part of the public as one possible path toward a cosmetic preparation which will have a definite provable effect in improving or producing a cosmetic improvement of the skin.

A new company soon to appear on the scene, working very much in this direction is the Erno Laszlo Company. Dr. Laszlo who first set up an institute for the treatment and care of the skin in Budapest in 1927 and has had his institute for that same purpose in this country since 1938 is establishing his cosmetic company in order to expand on a national basis the same treatment which he has been giving to an impressive clientele in this country in personal treatment. This cosmetic company whose sales will be directed by Bob Fiske, the former well-known cosmetic buyer of Saks Fifth Avenue, will operate on a basis of carefully selected stores in 100 cities where sales representatives trained by Dr. Laszlo's Institute will follow the ritual prescribed by the company. The ritual consists of four steps, that is, consultation conducted by the sales girls, diagnosis conducted at the Institute under Dr. Laszlo's care, the follow through with the sale of the products and a further follow through to make sure that the customer follows the prescribed treatment, together with a check on results.

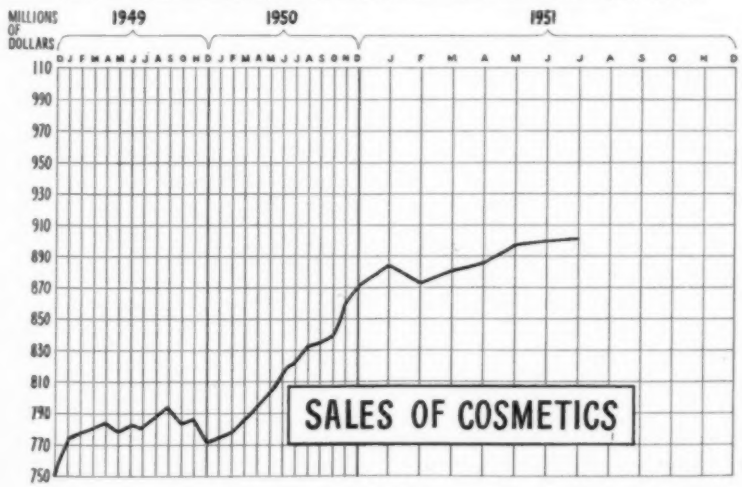
Again along this line, we mentioned last month the Huenelator Corporation of Beverly Hills, which now has on the market several cosmetic products based on the use of an enzyme. These products appear in a divided container which secures the enzyme containing ingredients from contact with another part which is said to provide an enzymatic action which immediately takes place when mixed and which is beneficial to the skin

Primrose House are now importing from France what they modestly label as "Astounding beauty serum for aging skin." This product is called Le Secret de Blanche Delysia, "named after the fabulous French beauty who developed it from an ancient beauty ritual which was closely guarded for many centuries." Le Secret is comprised of "seven little magic vials" which are said to hold a true natural beauty serum for aging skin.

Further on in the brochure it appears that the Le Secret contains "the essential elements of pure horse blood serum." This blood serum is said to be separated, sterilized and made cosmetically pleasing, that is, a delightful golden color; it is then hermetically sealed.

A few months ago there was some interest in the industry when a representative from France was in this country for the purpose of licensing a cosmetic manufacturer to produce and market a cosmetic cream which was said to be producing remarkable results in France and to be selling in a dynamically growing way. The basis of this product was said to be an extract produced from embryonic chickens. Although several cosmetic manufacturers expressed some interest at least on the basis of further investigation, we have not heard whether this chicken extract

Retail sales of cosmetics for the twelve months ended with July 1951 totaled $899,671,000. This compares with $898,369,000 for the twelve months ended with June 1951 and with $822,837,000 for the twelve months ended with July 1950.



cosmetic has been accepted in this country or whether it continues to find favor in France.

This industry has always been eager to experiment with new ideas and it has certainly never lacked imagination. Today the industry has a large number of able chemists and its alert society, that is the Cosmetic Chemists Association, has grown to real stature. Some of these products which are appearing represent more imagination and sales aptitude than they do scientific research. They recall to us the old days of the popularity of turtle oil cream, colloidal gold and others in the galaxy of bright imaginative stars with which the path of this industry has been studded. Nevertheless, the industry is developing its own body of sound research and out of all of these experiments and tests there is real hope that the cosmetic industry will some day fall into the path which has made such a brilliant record for the pharmaceutical industry in the last two decades.

Can't Afford To Have People Stay Home

In a very unusual advertisement lately Macy used a two-page spread in daily New York newspapers, devoting the full left hand page advising readers to see the moving picture "An American in Paris" and the right hand page devoted to apparel and accessories.

The reason for Macy's interest in this new moving picture and their reason for promoting attendance was made very clear in superbly written copy.

It is quite clear that Macy believes that too many people are staying home to watch television and that we are getting a little bit too much of the kind of family life that existed a generation ago when the typical American family was self-sufficient in its entertainment and made this entertainment center largely around the home.

According to Macy's persuasive words, the way to enjoy life is to go out on a party once in a while. For instance, to this new movie. And of course when you go on a party, what more do you need than a new dress and accessories.

It is interesting to consider that almost everything that has happened in this last generation such as the development of moving pictures, the almost universal ownership of automobiles, the very general employment in industry of women and many other things, have all worked toward the reduction of home entertainment and the increase in opportunities for getting out of the home and for meeting people. This undoubtedly has had a very substantial effect on the growth, for instance, of our fashion industries and in the sale of such products as apparel, costume jewelry, perfumes and cosmetics and, in fact, anything to do with good grooming.

As television becomes more and more important in American life, it looks as if it might be something of a two edge sword where one side will have an even more potent influence than did the moving pictures on the social life of Americans and in their aspiration to obtain the standards of life which they see illustrated through television. On the other hand, a growing inclination to spend more time at home in the bosom of the family where there is less and less need for the kind of products, cosmetics for instance, which only thrive when the user is in social contact with other people.

Imprinting Machine

Rolacoder 401 is a new automatic packaging imprinting machine made by Adolph Gottscho, Inc., Hillside, New Jersey. This machine is a compact production line attachment that will turn out spot-registered imprints of code-dates, weights, sizes, flavors and other data on small size cartons. The device is said to be useful for imprinting cans and bottles. The imprint message may contain as many as four lines taking up a maximum depth of 1 inch and a maximum length of 5 inches.

The Retailer Can Do It

In spite of the consumer franchise which some marketing men believe solves all retail problems, the idea seems to be getting around that the retailer still has a lot to say about what products sell in his store, franchise or no franchise.

In an article in Advertising Age on food brokers, we noticed this statement: "The broker knows that special displays in big self-service markets can, sales-wise, make poor media look like the best advertising buy in America."

Also in the English magazine, Scope, in an article on supermarkets:—"Self-service especially is beginning to teach that no amount of advertising is as effective in moving goods as a good position on the shelves of a shop organized to encourage impulse sales."

Again in the chain store edition of Retail Grey Matter: "Self-service and self-selection retail techniques enable the retailer, by a mere change of shelf height or a small change in counter location, to move the sales of an advertised brand *up or down* by as much as *40 per cent.*

Green Tooth Paste

Chlorodent, a green tooth paste with a chlorophyll base, is now being placed on a national market schedule, according to an announcement of the Pepsodent Division of Lever Bros. Co.

According to this announcement, laboratory tests show that this tooth paste reduces the acids in the mouth which cause tooth decay, promotes healthy gums and gives day-long breath protection. In addition the chlorophyll, by lightly coloring the toothbrush, keeps it sanitary between brushings.

Charles T. Lipscomb, Jr., Pepsodent President, states that the advertising which will introduce Chlorodent to the national market will be the biggest advertising budget ever put behind a dentifrice.

Chlorodent has been on test in four market centers, i.e. Portland, Maine; Winston-Salem, North Carolina; Columbus, Ohio and San Diego, California. The Company states that within less than five months Chlorodent has moved up among the leaders in all test cities and that repeat sales were running as high as 70 to 95 per cent among regular customers who tried it.

Chlorodent was originally introduced only in drug stores in each of these four cities but public interest soon moved it into the supermarkets. "If you had told me three months ago that I would be selling a new tooth paste in such quantity, I would have thought you were joking," said the manager of a Columbus grocery chain.

The most frequently heard comment was that Chlorodent gave the user a "clean, fresh mouth." This will be the basis of the introductory advertising appeal.

For commercial purposes alfalfa is the best source for chlorophyll. This farm forage is dried, chopped into a fine meal and then treated chemically to extract the chlorophyll. The chlorophyll is then further treated to change it into sodium copper chlorophyllin, which is soluble in water. This is the active ingredient in Chlorodent tooth paste and it has had rigid laboratory tests to make sure that it is non-toxic and harmless.

The body can not dissolve chlorophyll in the form in which it is found in plants. For use by the body, chlorophyll extracted from green leaves must be

The Empress closure and smart label combination make Duraglas stock-mold bott'e A-4338 a highly individualized sales package.

MAKE-UP makes the difference!

YOU'LL FIND it's surprisingly inexpensive to give your product sales appeal with expensive looking, but economical stock-mold Duraglas bottles.

Owens-Illinois has more than 1400 different sizes and styles of Duraglas stock-mold bottles to choose from. Our package design specialists at the Duraglas Center can help you create a striking bottle — label — closure combination that's just right for your product.

No matter what the market conditions may be, it doesn't pay to let your package get out of the *habit* of selling.

Duraglas TRADE MARK REG. U.S. PAT. OFF. bottles are protectors of quality

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

WIRZ Tubes

give
protection
convenience
sales appeal

These are just a few of the leading national products packaged in Wirz collapsible metal tubes.

For useful data on packaging your powders, pastes, soft solids or semi-liquids, write today for Wirz bulletin, "Collapsible Metal Tubes."

ESTABLISHED 1836

J. C. WIRZ Inc.

2308 W. Townsend St.,
Chester, Pa.

New York 17, N. Y. 50 E. 42nd St. | Chicago 4, Ill. 80 E. Jackson Blvd. | Memphis 2, Tenn. Wurzburg Bros. | Los Angeles 48, Calif. 435 S. La Cienega Blvd. | Havana, Cuba Roberto Ortiz & Son

Export Division—760 Drexel Bldg., Philadelphia 6, Pa.

Collapsible Metal Tubes · Lacquer Linings · Wax Linings · Westite Closures · Soft Metal Tubing · Household Can Spouts · Applicator Pipes · Compression-Injection Molding

treated chemically to make it soluble in water or oil.

Tastes Like Custard

Parke, Davis and Co. has a new chloromycetin product for children too young to swallow the capsule form. This new product, Pediatric Chloromycetin Palmetate, does not have the bitter flavor found in Crystalline Chloromycetin because this new drug for children has been given a rich custard flavor.

Another Step to Machine Age Retailing

Electronic control of packages checked out of a supermarket is now under test. Under this system every item in the store is price-marked with a metallic paint which registers on an automatic computer as the shopper checks out.

Self-service is more and more on the way to complete mechanization.

Tintair Progress

On the market a little over a year, Tintair, product of Bymart, Inc. has amassed sales of more than $20 million, retail value, which is three times the volume done in any previous year by all other hair dyes and tints put together, says November Fortune. Bymart is named after its two founders, Carl Byoir, a leading manufacturer of public opinion, and Martin L. Strauss II, formerly known as a manufacturer of furniture and Eversharp fountain pens and blades.

After Strauss and Ralph Bard picked up Eversharp cheap when it was near bankruptcy in 1939, Strauss put it back on the map. However, relying on the orginal Biro ball pen patents, he was rushed into competition before his product was right, and Eversharp's pen losses shot up to $10 million in a single year. Strauss was forced out, but Byoir, who was handling Eversharp's public relations, helped him over the bumps with the press, and the two became fast friends.

The product upon which Tintair is based was developed by Donu Edmond, a New York hairdresser, and Gene Grimault, a French chemist and cosmetician, who had tried it out successfully on 1,500 heads when Strauss called in Byoir and they obtained an option on it. They outbid others by offering not royalties, but a stock deal with capital-gains potentialties. Strauss and Byoir then put up $100,000 each. Then work was undertaken to get the product in shape so that it could be sold for home use, since up to that point it had only been used in Edmond's salon. And to get on the market as quickly as possible in order to get a head start over other possible products of the same type, they started at the same time to prepare their advertising, packaging, markets tests, radio and TV commercials, etc. If after all this, the product failed to shape up, Strauss and Byoir would be out $200,000, would shake hands, and call it a day. However, if the product were right they would save six months valuable time.

The product was put in Raymond Loewy's hands for packaging and styling, and Loewy dubbed it Tintair. By the Summer of 1950, Strauss and Byoir had reached the point at which they felt they were in the cosmetic business for a real whirl. They bottled some Tintair, ran tests in key cities, tried out their copy themes, and satisfied themselves that the product would develop a good repeat market. They raised additional capital and, on August 1, as a sort of insurance, Strauss brought in Phil Kalech, the ex-sales manager of Toni, as vice-president in charge of sales and distribution. When Kalech joined up, he bought 10,000 shares of stock.

When more money was needed, Bymart issued a prospectus which stressed the highly speculative nature of the business, cautioned that there was no guarantee that the spectacular sales of the first few months would continue, and pointed out that their was no assurance against the possibility of competitors successfully duplicating the formula. Though shares of $1 million were offered, the full amount was not subscribed, and currently the company is capitalized at $915,000. Sales for the first months were $500,000 in the first four months, $528,000 in November, $662,000 in December, and over $1 million in January, with the company going into the black in February. However, during 1951, Bymart has continued to pour most of its profits back into advertising, to date having spent over $3 million.

In the near future, Bymart will probably attempt some relatively large-scale financing as most of the money subscribed last Spring was used to equip the newly leased plant in Newark, N. J., and to shore up the company's working capital. Strauss is beginning to foresee a really big company evolving in Bymart. A recent survey shows that 21 per cent of American women now admit to coloring their hair, against 7 per cent who confessed last year, and 60 per cent of Tintair users have repurchased. Since a woman's hair supposedly grows one-half inch in six weeks, Strauss thought users would repeat at this interval. However, some of the girls, apparently, grew careless, for repeats are coming up at an average of eight to ten weeks.

With the large potential market still to be tapped, Bymart people profess not to be worried about the upcoming competition from Hudnut, Colgate, Lever, and even Toni. The advent of such vigorous advertisers, they say, will merely increase the size of the pie.

A new product, Lightening Change, is now out. This is a new type of bleach. A shampoo is being prepared, and other products in the works depart from the hair field altogether and may involve the creation or purchase by Bymart of a pharmaceutical company.

Super-Toni

Toni's well-publicized supermarket, self-service floor stand is now in operation in supermarkets. This is a rugged corrugated stand occupying a floor space of 18″ by 12″ with an arrangement which permits changing the display sign at the top.

Ad Expenditures

Here's a table showing how advertising expenditures, as a percentage of sales, works out. These figures were given at a meeting of the Association of National Advertisers and are based on 130 companies, members of the Association.

Drugs and cosmetics...	28.0 per cent
Alcoholic beverages....	5.2 " "
Other industries.....	5.0 " "
Electric appliances	4.7 " "
Food and groceries.....	4.3 " "
Home furnishings	3.8 " "

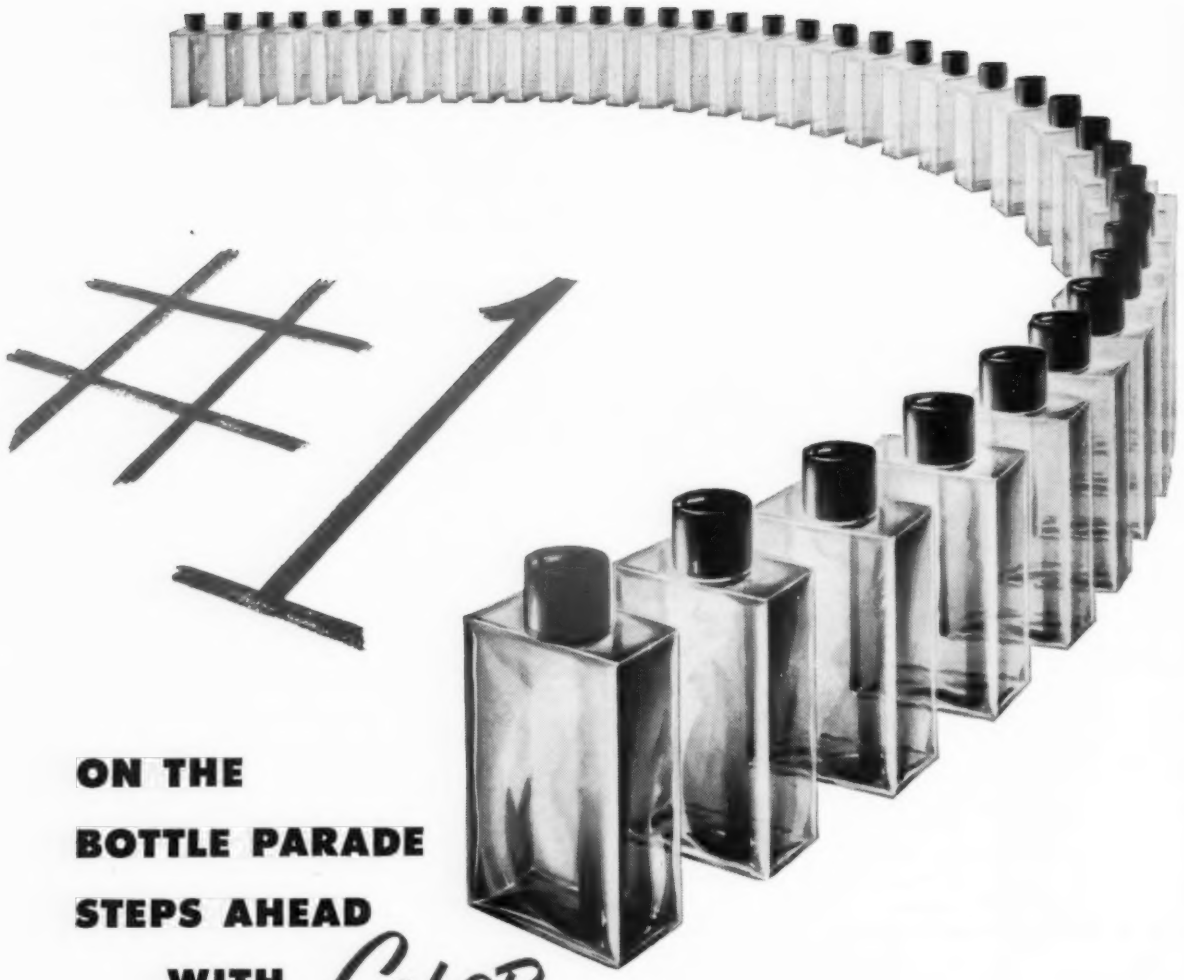
Easy Money

You can earn 25 cents by purchasing a bottle of Vitalis Hair Cream. All you have to do is to pay the dealer a regular price, tear off the front of the carton, write your name and address on the back and mail it to Bristol-Myers Company, New York. They will send you 25 cents in cash.

This new drive for Vitalis Hair Cream is based upon counter and window display material and local national advertising.

Buyers Beware

Less than 3 per cent of the manufacturers with whom Gimbels does business



#1 ON THE BOTTLE PARADE STEPS AHEAD WITH *Color*

The bottled product that first attracts the customer's eye is generally the one he will buy. So why not give *your* bottles the added eye appeal of colorful plastic caps! They're available now—in Plaskon Molded Color—featuring a wide range of shades and a broad selection of styles. What's more, these molded color closures offer the advantages of *solid, permanent, non-chipping* color. They are resistant to solvents, greases, oils, dilute acids and alkalies. Their non-porous, smooth, satiny finish is warm and friendly to the touch. Manufacturer, wholesaler, retailer or pharmacist... you are bound to discover that Plaskon Molded Color makes an effective selling feature out of a bottle. Ask your supplier for more details!

Your package can help sell your product... cap it with

PLASKON DIVISION • LIBBEY • OWENS • FORD GLASS COMPANY
Toledo 6, Ohio
In Canada: Canadian Industries, Ltd., Montreal, P. Q.
Branch Offices: Boston, Chicago, New York, Los Angeles, Rochester
Manufacturers of Molding Compounds, Resin Glues, Coating Resins

PLASKON.
MOLDED COLOR

account for more than 55 per cent of its volume. For this reason, according to a Gimbel executive, the store has instituted a policy which makes it impossible for resources to be changed at the whim of buyers.

"Our key resources for our basic brand merchandise", said this executive, "are the property of the store and can be changed only with the authority of top management."

Used To Be Easter

Non-metropolitan weekly and daily newspapers have very definite opinions regarding the news value and the advertisement producing value to their newspapers resulting from the multitude of special holidays and business weeks. In a recent survey here is how these newspapers list the first ten promotion days or weeks which they believe are producing some value:

1.	Clean Up, Fix Up, Paint Up	93.2
2.	Mother's Day	87.4
3.	March of Dimes	84.4
4.	New Year's Day	83.5
5.	Father's Day	81.6
6.	Fire Prevention Week	80.6
7.	Boy Scout Week	70.9
8.	St. Valentine's Day	67.0
9.	New Year's Eve	64.1
10.	Memorial Day	60.2

Our Best Salesman

To a remarkable extent American business has been employing the American girl to sell their merchandise. During the last twenty years the increase in the use of the American girl in advertising and in promotions has undoubtedly been the number-one phenomenon in this field. The basic reason for this, as advertising men say, is that when they find it difficult to call attention to their product or their brand they have discovered that a glamorous girl can do this for them.

It is now estimated that over 10,000 American products are using American girls to sell their merchandise. Some of these products and the girls they have made famous are known to nearly everyone, such as Miss Beauty Rest of Simmons Company Mattresses, Miss Rheingold whom the company admits has been the biggest factor in increasing their beer business nearly 600 per cent in the last ten years, Miss Universe who sponsors four well-known products and hundreds of others.

It is said that thirty of the largest promotions last year which used American girls spent over $22,000,000 and it is conservatively estimated that well over $300,000,000 is being spent yearly in advertising to give the American girl an opportunity to sell the goods of hundreds of manufacturers.

As an example of the way in which this kind of salesmanship appeals to American girls, one medium sized company received photographs from over 40,000 girls as applicants in a contest to establish their particular Miss.

Everlastingly at It

It takes a long, long, long time to make an idea sink in, according to James D. Woolf. In a very provocative article in Advertising Age, he gives plenty of examples to prove his point. Some of the people who have made an idea sink in include Lux Toilet Soap which has used the theme "Nine out of ten movie stars use, etc." since 1927. Coca-Cola has used "The pause that refreshes," since 1929. Ivory Soap after 69 years is still telling the public that Ivory is "99 44/100% pure . . . it floats," and Woodbury is still saying what it said 40 years ago, i.e. to use Woodbury's "For a skin you love to touch."

There has been a lot of talk and some research on the value of using repeat advertisements. Not only for economy and production costs, but because this repeat advertising seems to accumulate a momentum or recognition value, or some imponderable, that very often makes a deeper impression than a constant change in headlines, illustrations, stories and places.

In this industry we have several examples of the more than successful repetition of a single advertisement. Probably the most famous is the advertisement of Chanel perfumes for Chanel #5. We don't know how many years this advertisement has been repeated but it has been used constantly for very many years in the trade magazine, Beauty Fashion, and in a wide list of class consumer magazines.

Another famous example is the man with the violin which first introduced Dana's perfume, Tabu. This advertisement also first appeared in Beauty Fashion, was used without change in this magazine and in many consumer magazines and newspapers for three years. Over 100,000,000 impressions were made before the first change. Even today, after ten years of advertising, this illustration with varied treatments, is still the Tabu theme.

Almost every advertiser at some time comes up with a lucky strike advertisement which has character, individuality, real human appeal and suggests in a superior way the theme that will sell his product. It has always seemed a pity to drop this advertisement after one impression in a group of magazines, to replace it with a following series inferior in every way to this one advertisement. How much better it would be, and how much more economical in production costs, to keep this one advertisement running until there is visible evidence that it is wearing its welcome out.

No Help to Others Promotions

The Federal Trade Commission trial examiners has filed an initial decision directed against certain agreements of the International Cellucotton Products Co. and its wholesalers.

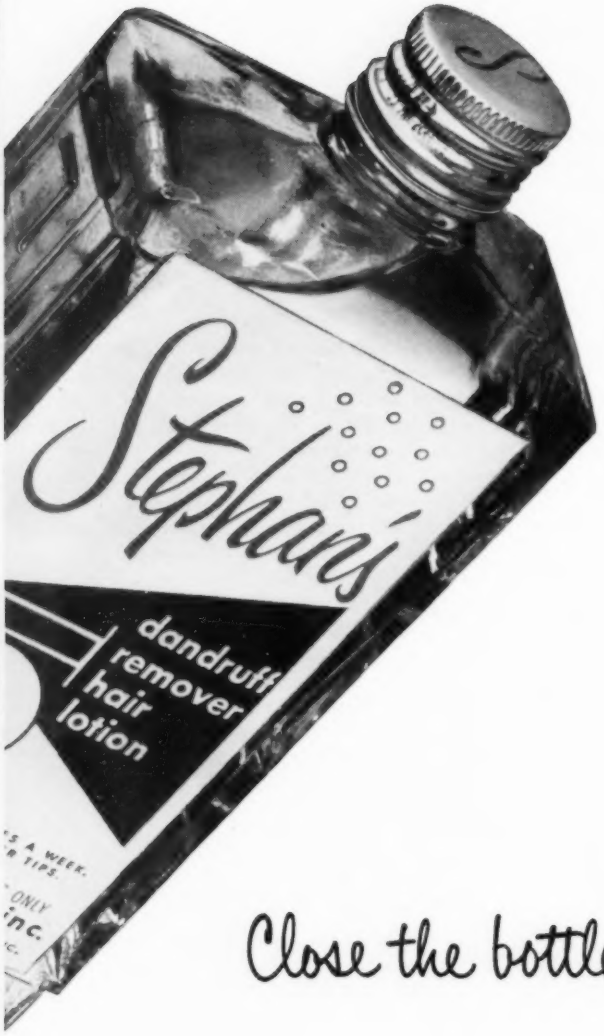
International's sale of its sanitary products during 1950 were in excess of $100,000,000, thus giving it the dominant position in its industry. These sales represent approximately 70 per cent of the sanitary napkins and 50 per cent of the facial tissues sold in the United States.

It appears that International gave its select wholesalers a discount of 15 per cent and in addition a "special commission" of 4⅓ per cent payable semi-annually to reimburse them for promotional service in behalf of International Products.

However, there was a specific agreement that the wholesaler need not spend any specific amount of the 4⅓ per cent discount for promotional purposes unless some competitors made use of some promotion plan with these wholesalers. In this event, International's wholesalers would have to spend an equivalent amount to their competitor taking this amount from the 4⅓ per cent.

During 1950, in order to be eligible for this discount, wholesalers were required to spend 50 per cent and during 1951, 75 per cent of the 4⅓ per cent special commission. In other words, and in the words of the Commission these wholesale factors "are reluctant to permit respondents' competitors to make promotional payments or inducement in any form" to the factors' employees since they "would have to make equivalent payments or inducements to their employees to promote respondents' products."

This means that if a competitor paid a p.m. to the salesmen of these wholesalers, then the unfortunate wholesalers would, in effect, have to dig into his own pocket and use the fund of 4⅓ per cent which he intended to put into his own pocket, to match the p.m.'s of a competitor.



CAN WE HELP YOU WITH

DEFENSE CONTRACT PACKAGING?

We have equipment and experience for producing metal containers and components for defense packaging. Write for information and quotations or call your nearby Alcoa Sales Office.

Close the bottle... and the sale!

ALCOA
ALUMINUM
ALCOA CLOSURES
FORMERLY SOLD AS ALSECO SEALS

Stephan's builds and *holds* customer confidence by sealing a fine product with Alcoa's Pilferproof—the cap that stops pilfering and substitution. With threads rolled on to fit the glass, this nonrusting Alcoa Aluminum Closure not only prevents tampering, it assures positive sealing. Tailor-made for the bottle it seals, it is easy to open, a secure reclosure.

Write for our catalog showing the full line of Alcoa Closures. Supplies for some uses are limited by government regulation. Your local Alcoa office will be glad to give you details on availability. You'll find the telephone number under "aluminum" in your classified directory.

HOW ALCOA PILFERPROOF CLOSURES REVEAL TAMPERING

The rolled-on locking ring joined to the cap shows that the Alcoa Pilferproof Closure has never been opened.

Cap, when removed, breaks away from locking ring, gives permanent evidence of tampering.

ALUMINUM COMPANY OF AMERICA • 1702L GULF BUILDING • PITTSBURGH 19, PA.

Doin's

Parfums Corday has introduced Toujours Toi, a new perfume containing only the finest essences known.

Tangee has produced a Petal Finish Pressed Powder, a two-in-one combination make-up that may be used either as a foundation-and-powder, or as a powder alone over a regular foundation. It conceals tiny blemishes and gives the skin a smooth, glowing mat finish.

Sharp & Dohme has placed Redicyte on the market, a high potency antianemic capsule. It contains a balanced combination of 9 factors for the treatment of both iron-deficiency anemias and macroctyic and megaloblastic anemias.

Revlon has just introduced a new cosmetic shade, Love That Red.

Chesebrough Mfg. Co. is preparing its gauze bandages impregnated with Vaseline petroleum jelly for home use, having formerly been sold only to the armed forces, doctors and hospitals.

Dorchester Products Co. is introducing the new breath and body deodorant, Clorodet, in a folding carton and display dispenser made by Robert Gair Co., Inc.

Winthrop-Stearns Inc. is distributing a new injectable vitamin B complex preparation called Betasynplex with Vitamin B_{12}, found highly effective for multiple vitamin therapy in cases of deficiency of B complex factors.

E. R. Squibb & Son announces the availability of a new, ready-to-use disposable syringe, the Unimatic Syringe.

Wyeth Inc. has introduced two new products, Beplete with Belladonna, for mucous colitis, nonspecific ulcerative colitis, spastic constipation, and other conditions; and Streptomagma, containing dihydrostreptomycin for intestinal disinfection and kaolin suspended with pectin in alumina gel for control of diarrhea.

The E. L. Patch Co. has introduced Bluban tab'ets, useful in restoring mental alertness in mild psychogenic depressive states. They are provided in bottles of 100 and 1000.

Lederle has announced a new form of aureomycin for veterinary use, Aureomycin Hydrochloride Crystalline Oblets, for the treatment of metritis infections caused by retained placenta following calving.

Tussy's new Men's Line will be introduced December 1 in time for Christmas selling and will include After Shave Lotion, Cologne for Men, Talc and an After Shave Stick, both individually, and in gift sets.

Guerlain plans to introduce Vol de Nuit Eau de Cologne in February, to ensemble with the perfume, toilet water, bath oil, talc and lotion vegetal in the same scent.

Ortho Pharmaceutical Corp. has announced the preparation of Preceptin Vaginal Gel, a new contraceptive gel which requires no diaphragm and which has shown better than 99 per cent effectiveness in clinical trials, according to the company.

Bathing Jewels, Inc. has made a new twist in perfume packaging in the form of "Perfume Jewels," tiny gem-like capsules, each one containing just enough perfume for a single application.

Tintair has come up with Lightening Change, which will lighten the hair up to eight shades in 10 to 30 minutes. It may be used on all types of hair, including hair which has been bleached, dyed or permanently waved by the hot or cold method.

Geo. H. Lee Co. is distributing Lee's Mastitis Ointment with Plus Action containing penicillin, streptomycin, sulfathiazole and sulfanilamide. The combination of the four drugs increases the effectiveness of each part and produces a greater effect than if each were used separately.

Bristol-Myers is going into national distribution of its Ipana penicillin tooth powder following extensive consumer tests in New England.

Roux Distributing Co. has been launching the largest ad campaign in history for Roux hair coloring products with color and full-page ads in a series of magazines and newspapers.

Block Drug Co. has entered the chlorophyll market with Green Mint, a mouthwash which sells for 53c for an 8-oz. bottle.

Thos. Leeming & Co., Inc. has prepared Nephenalin, a different antiasthmatic which combines in a single tablet elements that dilate the bronchi in about 90 seconds and extend this initial asthma relief 4 hours or more.

Schering Corp. has introduced a nontoxic polyethylene pill box as a sample container in domestic markets.

Merck & Co., Inc. has added Penstrep to its line of products. It contains penicillin and dihydro-streptomycin and comes in one-and five-dose vials for intramuscular injection after dilution.

Faberge has a gold and white gift set holding a complete wardrobe of purse colognes, called Quartette, Jr. Also in a gift set is Faberge's new Bath Perfume in four fashion fragrances, Aphrodisia, Woodhue, Tigress, and Act IV.

Almay Cosmetics has offered a new gift package, the Almay Rose Set, which contains a 6 oz. box of dusting powder, a 3½ oz. jar of cold cream, and a bar of Almay's cold cream soap.

Abbott Laboratories have two new products, Cumopyrin, a new synthetic anticoagulant for oral use, and Thenylene Expectorant, a pleasant-tasting cough remedy.

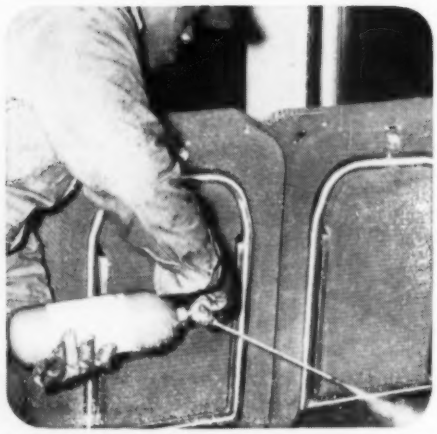
Abbott has also introduced Trisulectin Suspension, Veterinary, a homogeneous, tasteless suspension for use in the treatment of bacterial infections of the intestinal tract in foals, calves, lambs, kids, pigs, dogs, and cats.

Christian Dior is presenting a new bath powder to accompany Miss Dior and Diorama perfume and toilet water scents.

Parke, Davis & Co. has developed Pediatric Chloromycetin Palmitate, chloromycetin product for children, which tastes like custard.

Somnyl Pharmacal Corp. of America introduced Nu Pax non-habit forming sedative in the eastern seaboard market last month with heavy promotion in radio and television shows.

Why AEROSOLS are



Insecticide aerosols have many commercial and industrial uses, too.

Insecticide aerosols give most effective killing action.

Methproofing aerosols are easy to use; gaining popularity.

Aerosol paint dispensers simplify tough and tiring jobs.

They're new. . . the modern way of dispensing many kinds of products. They eliminate fuss and muss . . . do a better job, quicker. Any product now brushed, squeezed or sprayed on can probably be packaged in an aerosol container for more effective use.

They're easy to use. . . just as easy as pushing a button. Aerosols are convenient and handy, too. Note the pictures left and right . . . the simplicity of using aerosol insecticides . . . mothproofers . . . deodorizers . . . paints . . . waxes . . . suntan lotions and even shave creams.

They're effective. . . because aerosols can quickly dispense the product in the right place for best results. They're economical because a little does a lot . . . another forceful selling point. For example: household deodorant aerosols in only three or four seconds will completely clear the air in a room of average size!

They're growing in number constantly. . . from only a few insecticides shortly after War II to hundreds of aerosol-packed products of many types. Manufacturers were quick to recognize the sales possibilities of this new package.

They have sales appeal. . . rapidly increasing the use of aerosols everywhere. An annual survey made by Du Pont for the past four years proves this conclusively. For example: a representative group of housewives asked which method they preferred for dispensing room deodorants voted 3 to 1 for aerosols over any other way.

They're excellent profit-builders. . . because they're fast-moving items. Dealers everywhere quickly welcomed aerosols, recognizing this new way of dispensing various products as far superior to old methods. Indeed . . . aerosol products are

steadily gaining popularity!

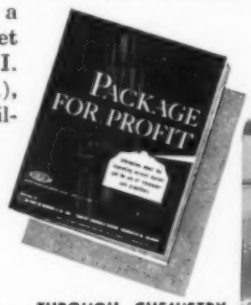
Room deodorant aerosols permit quick deodorizing where and when needed.

Shave cream aerosol dispensers are finding favor with men everywhere.

the kind of merchandise that all sales-minded dealers like to feature.

"Freon" propellents preferred . . . for aerosols of every type. These propellents are nonflammable, nonexplosive, virtually nontoxic, chemically pure and harmless to fabrics, furs and finishes. These qualities and their pressure versatility make them ideal for all aerosols.

"PACKAGE FOR PROFIT" . . . a new 32-page booklet that will answer your questions about aerosol products and the use of "Freon" safe propellents. Explains why most aerosol producers use these propellents exclusively. Contains a wealth of information about the aerosol market and what steps to take if you're thinking of pressure-packaging some of your own products. Write today on your business letterhead for a free copy. And ask, too, for a digest of the latest Du Pont Market Survey on aerosol products. E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.



DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

KINETIC

"FREON" SAFE PROPELLENTS

"FREON" is Du Pont's registered trade-mark for its fluorinated hydrocarbon propellents.

Suntan lotion aerosol dispenser is popular summertime product.

Car wax aerosol dispensers save plenty of "elbow grease."

CALUMET

PRESENTS THE

NEW! Streamliner

THE ANSWER TO PLASTIC LIPSTICK CONTAINERS

NO LARGER THAN METAL
SWEATPROOF

AVAILABLE WITH .477
AND .500 CUPS

VELVET-SMOOTH SWIVEL ACTION

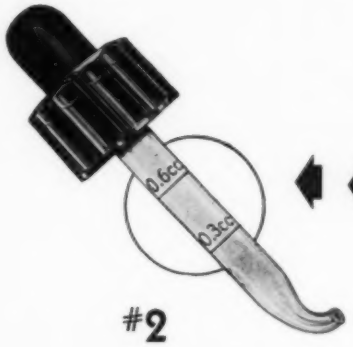
CALUMET MANUFACTURING CO., INC.

565 Fifth Avenue

Sam Schwartzman
President.

NEW YORK (17), N.Y.
MUrray Hill 8-4270

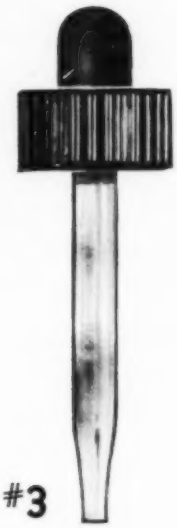
New Perfection DROPPING PARTS



#2

ACCURATELY CALIBRATED In Any Color

#1



#3

#4

This Inexpensive EXTRA FEATURE Adds A Welcome Convenience To The Use of Your Product

Accurate calibration of New Perfection dropper glasses adds immeasurably to the user's satisfaction with your product. Not only is the specified dose measured with more precision, but the tedious and time-wasting practice of counting drops is made unnecessary.

Trade-marks or firm names may also be imprinted on the glass, assuring that the name will be identified with the product each time it is used.

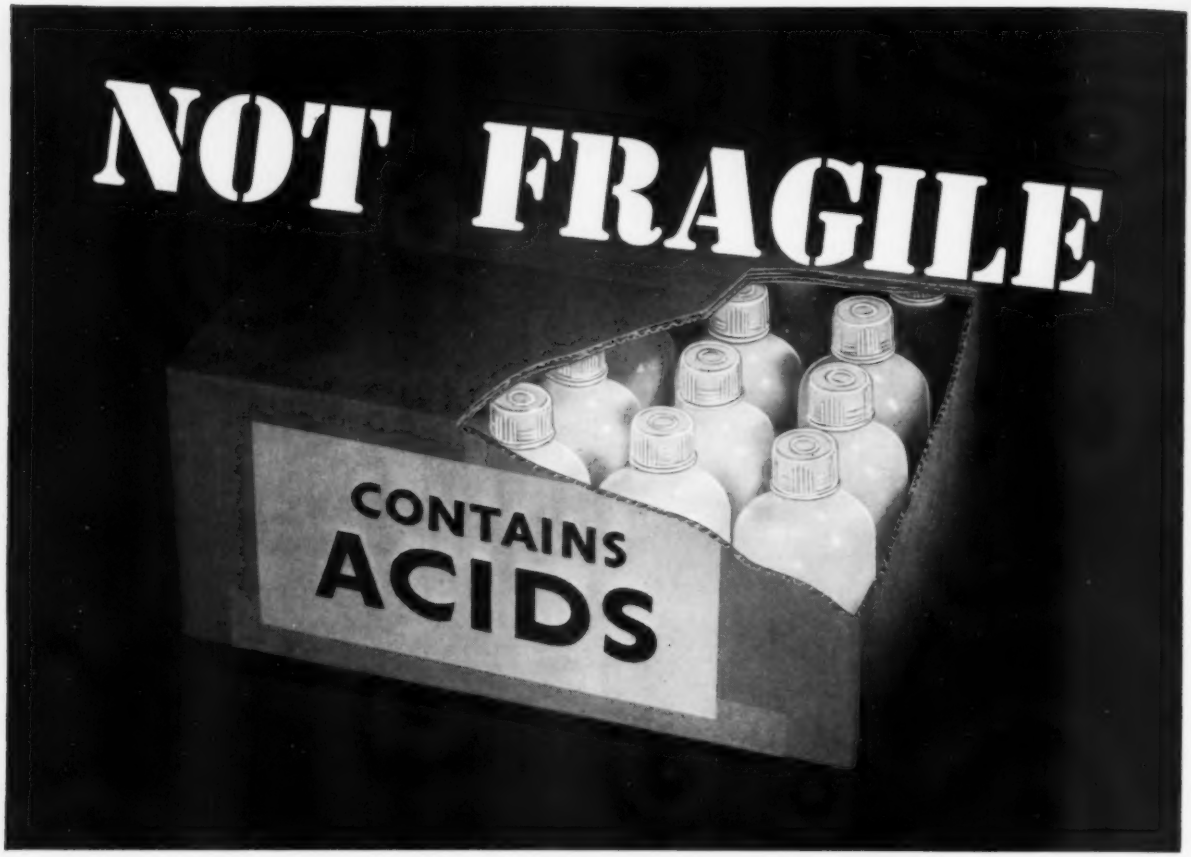
We can supply various colors of bulbs in natural rubber or in our special oil-resisting Amekine compound, caps of plastic or metal in many sizes and colors, and various types of dropper glasses in any length. New Perfection dropping parts will fit your own bottles, or can be supplied in combination with our Modernistic bottles in Amber, Blue, Green or Clear glass. Sizes: 2 cc, ⅛, ¼, ½, 1 and 2 oz.

Write for Samples and Quotations

PENNSYLVANIA GLASS PRODUCTS CO. INC.

"Glass Goods of the Better Kind"

430 N. CRAIG ST. • PITTSBURGH 13, PA., U. S. A.



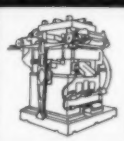
For Packaging Acids so that they can be shipped, stored and handled without fear of breakage, on the ground or in the air. Need to get a highly corrosive or expensive chemical somewhere in a hurry? The Plaxpak bottle is the answer. Take it high in the sky. Unequal pressures will cause it to flex, but not break or pop its closure. Drop it on the ground. It will bounce, but not break. Shipping weights are drastically reduced. When compared empty, the Plaxpak bottle is one-fifth the weight of glass; when filled, one-half the weight.

Only the best is

OTHER EMHART PRODUCTS INCLUDE:

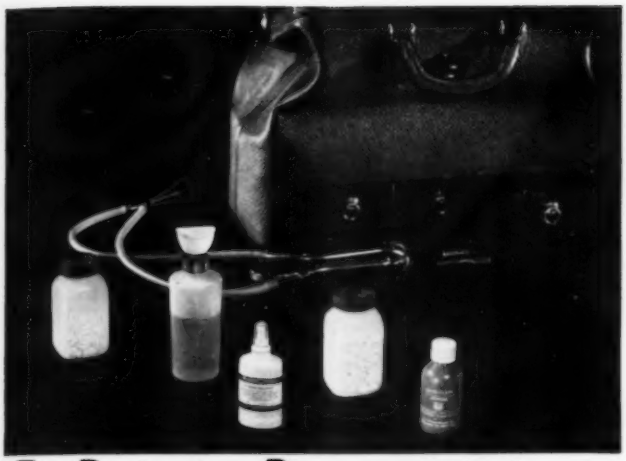
AUTOMATIC PACKAGING EQUIPMENT
STANDARD-KNAPP
Division of Emhart Mfg. Co.
PORTLAND, CONNECTICUT

GLASS MAKING MACHINES
HARTFORD-EMPIRE CO.
Division of Emhart Mfg. Co.
HARTFORD 2, CONNECTICUT



HIGH SPEED AUTOMATIC PRESSES
HENRY & WRIGHT
Division of Emhart Mfg. Co.
HARTFORD 5, CONNECTICUT

PREMIUM QUALITY STAMPING PRESSES
THE V & O PRESS CO.
Division of Emhart Mfg. Co.
HUDSON, NEW YORK



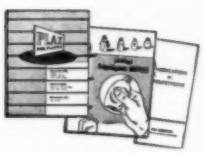
For Packaging Pharmaceuticals in liquid or powder form, the Plaxpak bottle offers the triple advantages of unbreakability, lightweight and, where desired, controlled dispensing as a spray, stream or droplet. Shown above are some stock bottles for medicinal use.

For Laboratory Research the Plaxpak bottle provides the convenience of an unbreakable, chemically inert container, and the added advantage of controlled dispensing. The stream dispensing fitment shown above was developed by S. H. Ansell & Sons, Boston, Mass.

For Boosting Turpentine Production the Plaxpak bottle has proven an invaluable aid. It is used as a container for sulfuric acid, which is squirted into "wounds" in the tree to increase sap flow. Safe, easy to handle and inert to the acid, the Plaxpak bottle speeds up operations, vastly increases manhour output and helps to lengthen tree productivity.

good enough

HELPFUL PLAX LITERATURE
Catalogs on Plaxpak bottles and other Plax products are available on request. Also available is a booklet "Fabrication of Polystyrene."



"Plaxpak" is a registered T. M. of Plax Corp.

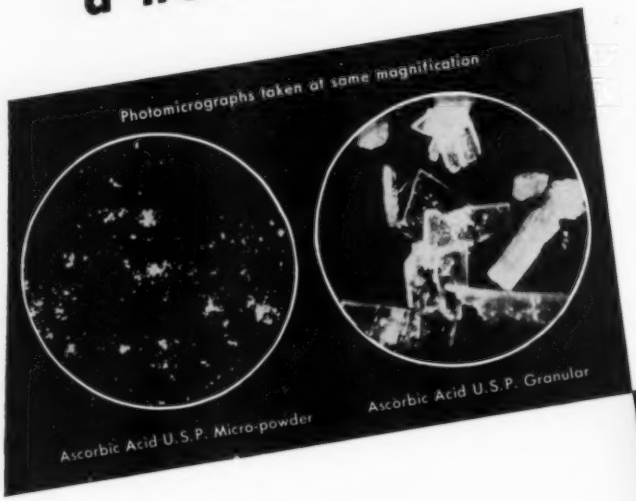
Plax blow-molded products are made under the following U. S. Pats.: 2128239, 2175053, 2175054, 2230190, 2260750, 2283751, 2349176, 2349177, 2349178, 2230188. *Reg. U. S. Pat. Off.

PLAX
FOR PLASTICS
NOT SUBSTITUTES IMPROVEMENTS

PLAX CORPORATION
Subsidiary of Emhart Mfg. Co.
P. O. BOX 1019, HARTFORD 1, CONN.
In Canada, Plax Canada, Ltd., Toronto
Sales Offices: New York City, Syracuse, Philadelphia, Cincinnati and Chicago.

now...ASCORBIC ACID MICRO-POWDER

a new cost saver



Causes less abrasion... gives added life to your dies

To meet the demand for a finely milled powder with greater uniformity of particle size, Pfizer now offers to the pharmaceutical industry a new Ascorbic Acid U.S.P. Micro-powder. This product is so fine that 90% will pass through a 325 mesh screen.

No advance in PRICES or change in PACKAGING

Write for information, samples and prices

PFIZER QUALITY

PFIZER

Pioneers and Leading Manufacturers of Vitamins

Chas. Pfizer & Co., Inc., 630 Flushing Avenue, Brooklyn 6, N. Y.; 425 North Michigan Avenue, Chicago 11, Ill.; 605 Third Street, San Francisco 7, Calif.

News...

Powers in New Pfizer Post

John J. Powers, Jr. has been elected to fill a new vice-presidency post, according to John E .McKeen, president of Chas. Pfizer & Co., in which he will assume responsibility for all of the company's foreign activities. This includes the operations of the company's foreign trade subsidiaries, Pfizer

JOHN J. POWERS, JR.

Canada, Ltd., Laboratories Pfizer, S. O., Pfizer International Corp., and Pfizer, Ltd.

Donald Hilton will continue as president of the Pfizer subsidiaries and as director of Pfizer's foreign sales.

Hugo Mock Honored at Luncheon

Hugo Mock, of the law firm Mock & Blum, was honored with a testimonial luncheon by the Cosmetics and Drugs division of the Federation of Jewish Philanthropies on November 15, at the Hotel Pierre, New York. This salute to Mr. Mock for his many years of philanthropic, civic and business leadership will be the start of his division's effort on behalf of the Federation's 1951 campaign for $20 million.

Long active in industry affairs, Mr. Mock has been counsel for the Perfumery Importers Association since 1919. For the past 18 years he has been counsel for the Toilet Goods Association. He is chairman of the section of the Food, Drug and Cosmetic Laws of the New York State Bar Association and a member of the advisory committee of lawyers of the United States Trade-Mark Association.

ELMER H. BOBST

Warner-Hudnut Buys Maltine Co.

Warner-Hudnut, Inc., is acquiring the outstanding stock of the Maltine Company (Chilcott Laboratories), according to Elmer H. Bobst, president of Warner-Hudnut, and James C. Chilcott, president of Maltine. Two shares of Warner-Hudnut stock are being given for each of the 146,652 shares of Maltine outstanding. At the market price of Warner-Hudnut stock at the time the agreement was announced, this indicates a price for the Maltine Company of slightly more than $5,000,000.

The acquisition contemplates no change in corporate form, internal organization, or customer and employee relations of the Maltine Company, and business will be continued to be carried on as a separate entity. Mr. Chilcott will retain the presidency of the Maltine Company and also becomes a director and vice-chairman of an executive committee of Warner-Hudnut, of which Mr. Bobst will be chairman. Charles T. Silloway, vice-president of Maltine becomes vice-president of Warner-Hudnut in charge of combined pharmaceutical promotion and sales of both companies, and he also becomes executive vice-president of Maltine. Charles L. Huisking, president of Chas. L. Huisking & Co., who has long been a director of Maltine, becomes a director of Warner-Hudnut.

JAMES C. CHILCOTT

The addition of Chilcott Laboratories sales, which have increased from $550,000 in 1940 to an estimated $3,500,000 in 1951, will increase by approximately 50 per cent the domestic ethical pharmaceutical business of Warner-Hudnut.

Substantial advantages will accrue from the combination of the medical research, promotional and sales activities of the two companies, according to Messrs. Bobst and Chilcott. The combined research appropriations of the two companies for 1951 exceed $1,000,000, and the two companies together will have about 125 detail men calling on the medical profession.

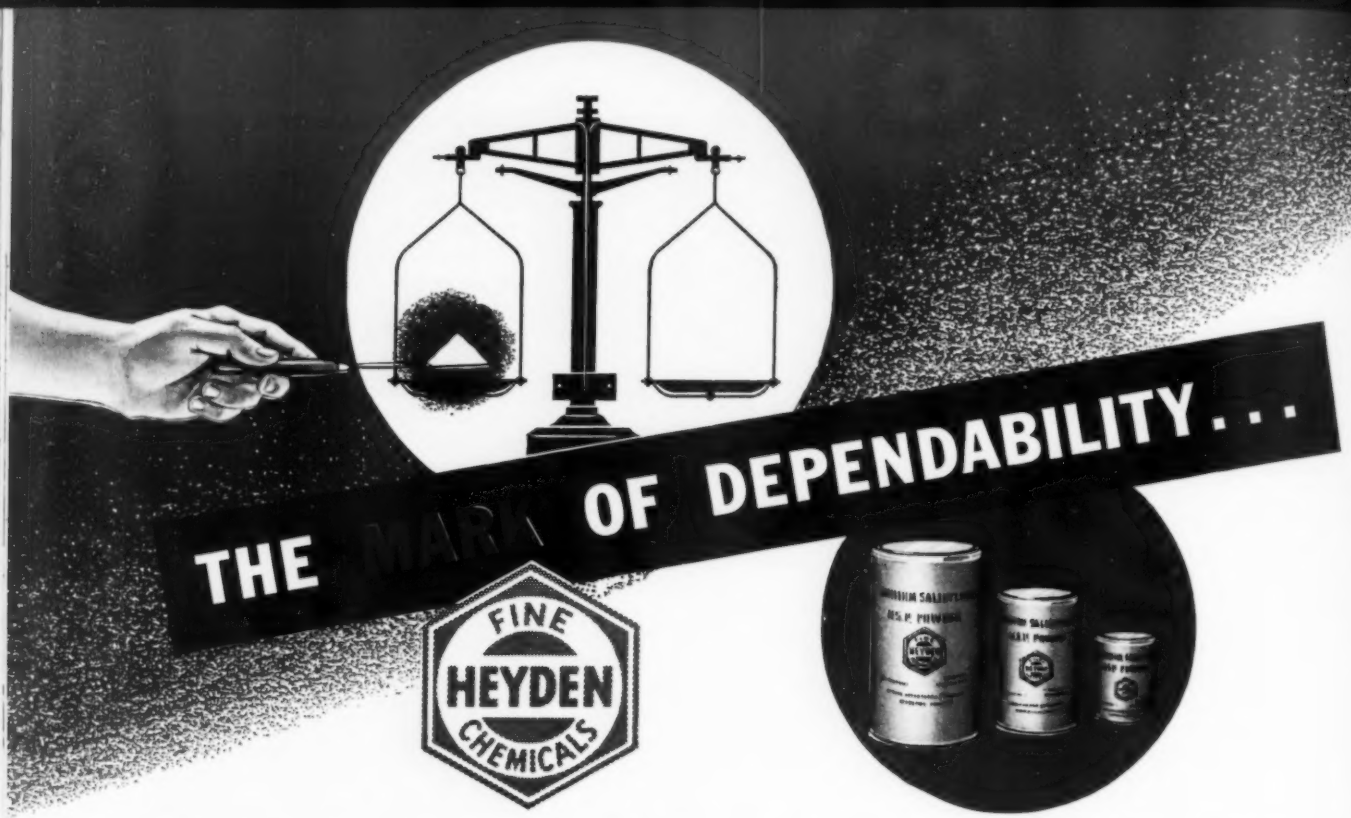
CHARLES T. SILLOWAY

Emelin Marks 35th Yr. in Drug Field

Arthur C. Emelin, 47, and president of Schenley Laboratories, Inc., is this year celebrating his 35th anniversary in the pharmaceutical field. After graduating from Columbia College of Pharmacy in 1923, he filled prescriptions behind the counter in his father's drug store in Mamaroneck, and in 1934, resigned to detail physicians in New England for Parke, Davis & Co. He was later promoted to sales supervisor until 1944, when he joined Schenley Laboratories as the first district manager, and subsequently, general sales manager. Last May he succeeded the late Irving J. Seskis as president.

Sharp Is Pres. Merck (N. Amer.)

James H. Sharp, financial vice-president and director of Merck & Co., Inc., has been elected president of Merck (North America) Inc., the Merck export subsidiary. He succeeds George W. Merck, who has resigned from that position to fill the newly created post of chairman of the board of directors. He is also board chairman of the parent company.



SALICYLIC ACID

The Heyden hexagon has always been the symbol of dependability and quality in chemicals. Years of experience in manufacturing Salicylic Acid and its derivatives assure you of purity and uniformity in these important products—whether in prescription quantities or truckloads.

If your formulations require Salicylic Acid or any of the Salicylates listed below—for use as an intermediate; in ointments; in tablets; in many other applications—standardize on Heyden for assurance. Samples and further information will be forwarded promptly on request.

FOR PRESCRIPTION AND MANUFACTURING USE . . .

●

SODIUM SALICYLATE U.S.P.
Large Crystals, Flo Crystals or Powder

METHYL SALICYLATE U.S.P.
(*Oil of Wintergreen, synthetic*)

ACETYLSALICYLIC ACID U.S.P.
Crystals or Powder
(*also Starch Granulations*)

PHENYL SALICYLATE N.F.
(*Salol*)
Granular or Powder

AMMONIUM SALICYLATE N.F.
Crystals

CALCIUM SALICYLATE
Powder

LITHIUM SALICYLATE

MAGNESIUM SALICYLATE

STRONTIUM SALICYLATE N.F.
Powder

Serving Industry Through Finer Chemicals

BENZALDEHYDE • BENZOATES • BENZYL CHLORIDE
BROMIDES • CHLORINATED AROMATICS
CREOSOTES • FORMALDEHYDE • FORMIC ACID
GLYCEROPHOSPHATES • GUAIACOLS
HEXAMETHYLENETRAMINE • MEDICINAL COLLOIDS
METHYLENE DISALICYLIC ACID • PARAFORMALDEHYDE
PARAHYDROXYBENZOATES • PENICILLIN • PENTAERYTHRITOLS
PROPYL GALLATE • RESORCINOL • SALICYLATES
SALICYLIC ACID • STREPTOMYCIN

FINE HEYDEN CHEMICALS

HEYDEN CHEMICAL CORPORATION
393 SEVENTH AVENUE, NEW YORK 1, N. Y.
CHICAGO • PHILADELPHIA • SAN FRANCISCO • DETROIT • PROVIDENCE

Meeting of Soc. of Perfumers

The American Society of Perfumers, Inc., held their first executive committee meeting and luncheon at Grossingers Hotel, Monticello, N. Y., last month, when the year's program was reviewed. The committee plans to meet every other month, at which times they will have a technical talk, and it intends to hold three business meetings a year.

Slater Promoted by J. T. Baker

Charles H. Slater, manager of the fine chemical division, J. T. Baker Chemical Co., has been promoted to the position of assistant to Ralph A. Clark, vice-president in charge of sales. Mr. Slater's post has been filled by Warren F. Schumacher, manager of the company's New York sales office and fine chemical sales representative in the New York area. Harold W. Feuchter succeeds Mr. Slater as New York manager and will continue in his present function of industrial sales representative in that area.

Stewart Cowell has been transferred to New York from the firm's Michigan marketing area to take over Mr. Schumacher's duties of fine chemical sales representative. Mr. Cowell, in turn, is being replaced by Bruno Gheradini, who recently joined Baker from American Cyanamid Co.

CHARLES H. SLATER

Miller Appointed by Hooker

Harris C. Miller has been assigned to sales territory comprising upper New York State and western Pennsylvania, according to H. E. Wilkin, general sales manager of Hooker Electrochemical Co.

Brown Named TGA Director

Robert B. Brown, president, Bristol-Myers products division, has been elected a director of the Toilet Goods Association to complete the term of Joseph P. Hardie, who resigned.

Executive Committee luncheon meeting of Amer. Soc. of Perfumers, Inc. which was held at Grossinger's Hotel, Monticello, N. Y. Left to right: Basil Pegushin, Paul A. Sandars, and Frank Spitaleri, directors; W. Dunney, Sr., Ungerer & Co., 1st pres. Bernard Polak, Polak Frutal Wks., v.p.; Dr. A. T. Frascati, Perfumers Assoc., 2nd pres.; Louis de Hoyos, Jr., Synfleur Scientific Labs., v.p.; W. Barlow, Orbis Products Corp., Sec.; F. Fielding, Synfleur Scientific Labs., Inc., pres.; and George Tombak, E. I. duPont de Nemours & Co., past president. The year's program was discussed during the meeting.

Kalt Appointed by Ames

Charles J. Kalt has been appointed assistant advertising manager of the Ames Co., Inc.

Bernegger Named Bristol-Myers V.P.

E. Lloyd Bernegger has been appointed vice-president in charge of sales, according to the products division, Bristol-Myers Co.

E. LLOYD BERNEGGER

New Plant for Stanton Chem. Corp.

Stanton Chemical Corp. has opened a new plant at 2853 W. Irving Park Road, Chicago 18, for the purpose of private packaging of cosmetics for manufacturers. Officers of the corporation are Michael A. Stanton, president; Bettie Stanton, vice-president; and Willard Abraham, secretary-treasurer. Stanton at the present time supplies a large group of permanent wave manufacturers with neutralizers packaged in aluminum foil.

Merck Scientific Awards

The boards of directors of Merck & Co., Inc. recently established a Scientific Award on the suggestion of President James J. Kerrigan, as a means of honoring Merck Scientists for outstanding accomplishment. The award takes the form of an appropriate certificate, setting forth the scientist's achievements. The board also authorized, as part of the award, a grant of $25,000 by the company to one or more educational institutions in honor of each award winner, to be used for the support of a fellowship, scholarship, lecture series or for some other comparable purpose. Each grant would be made with the understanding that the recipient institution in its administration of the grant would designate the activity in the name of the award winner.

Awards were recently presented to Dr. Karl Folkers, Dr. Lewis H. Sarett, and Dr. Max Tishler in recognition of their research accomplishments in the development of vitamins, antibiotics, and cortisone. They include: an undergraduate scholarship in honor of Dr. Sarett that will be awarded annually to an outstanding senior in the Department of Chemistry at Princeton University, and an annual scholarship in chemistry at Northwestern University. A $12,500 gift to establish a lecture series in Chemistry at University of Wisconsin in honor of Dr. Folkers, and a $12,500 fund at the University of Illinois. A Max Tishler series in Chemistry at Harvard University through a grant of $15,000 and another grant at Tufts College.

DR. JOSEPH R. STEVENS

Stevens Named V.P. of J. T. Baker

Dr. Joseph R. Stevens, technical director of the J. T. Baker Chemical Co., was elected a vice-president of the company last month, at the annual meeting of the board of directors, according to Marion W. Smith, president.

Heyden Sells Shares in Amer. Potash

Mathieson Chemical Corp. has purchased all of the 134,725 shares of American Potash and Chemical Corp. owned by Heyden Chemical Corp. at a price of $5,389,000 or $40 per share. This amounts to a capital gain to Heyden of about $840,000.

Heyden's 25 per cent interest in American Potash and Chemical Corp. was acquired between 1946 and 1950 at an average price of $33.77 per share. The sale of the shares, according to John P. Remensnyder, president, conforms with Heyden's policy in recent years to concentrate its activities in those fields in which the company is well established and has been most successful and to work toward a closer integration of its production facilities. The process of the sale will be added to the general funds of the corporation and will be used for such corporate purposes as the board of directors may determine.

Appointed to Export Posts

Con M. Hewitt has been named manager of export field operations of Sharp & Dohme, Inc.; James J. Kane, manager of export financial operations; and Alfred D. W. Freund, manager, Philadelphia Export Internal operations, according to William B. Wimpenney, director of foreign operations. The appointments are a reflection of the company's rapidly expanding export business, Mr. Wimpenney states, and will serve as a base for future export expansion moves by Sharp & Dohme.

New Research Division for CSC

Commercial Solvents Corp. has created a new nutritional research division, with Dr. Joseph M. Pensack as director, at the research department of the company in Terre Haute. The creation of this division is the result of the company's increasing research activities in the animal and poultry feed supplement field.

As director of the nutritional research division, Dr. Pensack will report directly to Dr. Jerome L. Martin, general director of research.

Macwithey with Bristol-Myers

James L. Macwithey, formerly a vice-president and personnel manager of Rubberset Co., has joined Bristol-Myers Co. as special assistant to the director of public relations. He will be concerned primarily with plant and community affairs in New Jersey, where four Bristol-Myers divisions are located.

JAMES L. MACWITHEY

Schering Managers Visit Main Office

Allen N. DeBevoise, manager of Schering Corp's. southern division of South America, and Andrew Held, supervisor of the company's Indian division, recently visited the home office in Bloomfield, N. J., where they met with Robert J. Bowie, assistant manager of the International division. They discussed local problems as well as the operation of Schering's processing plants in their areas. They also conferred with Dr. John N. McDonnell, vice-president, and other Schering executives, on new products to be released soon.

Paccone With HIF

Edward T. Paccone has been added to the public relations staff of the Health Information Foundation, according to Admiral W. H. P. Blandy, president. He will assist Edwin R. Leibert, public relations director, and will be responsible for press relations.

Mann Fine Chems. Forms Subsidiary

Mann Fine Chemicals, Inc. has organized a subsidiary, Mann Research Laboratories, Inc., to consolidate and extend research and production on amino acids and research chemicals. The subsidiary will offer a complete line of amino acids, natural and unnatural, in their L, D and DL form, polypeptides, pure crystalline enzymes, analytical enzymes and enzymes for special purposes, rare sugars, vitamins, and a number of complex organic research chemicals.

Production and research will be located in Passaic, N. J., and the sales offices will remain with Mann Fine Chemicals, Inc.

Rebuilds Plant After Fire Loss

The Standard Cap and Molding Co. of Baltimore has resumed full operations, according to Collins Crowther, president, following the disastrous fire on February 1, 1951, which destroyed the plant, now completely rebuilt. The plant is equipped with the most modern equipment and contains approximately 20,000 square feet of floor space. The company is now in a position to offer quick delivery on the "Classic" cap in 11 sizes from 8 to 38 mm., in short, medium and tall skirt; and in regular finish, with hole for dropper, or well for applicator.

A modern machine shop now makes it possible for Standard Cap to offer better facilites than ever before in the private mold department.

Heads McKesson's Newark Division

Vern V. Barnes, formerly district drug sales manager of the eastern region of McKesson & Robbins, Inc., has been appointed division manager of the company's Newark division, replacing Raymond Schumacher who has been transferred to the drug buying department of the company's home office.

RAYMOND SCHUMACHER

Blueprint for Sales

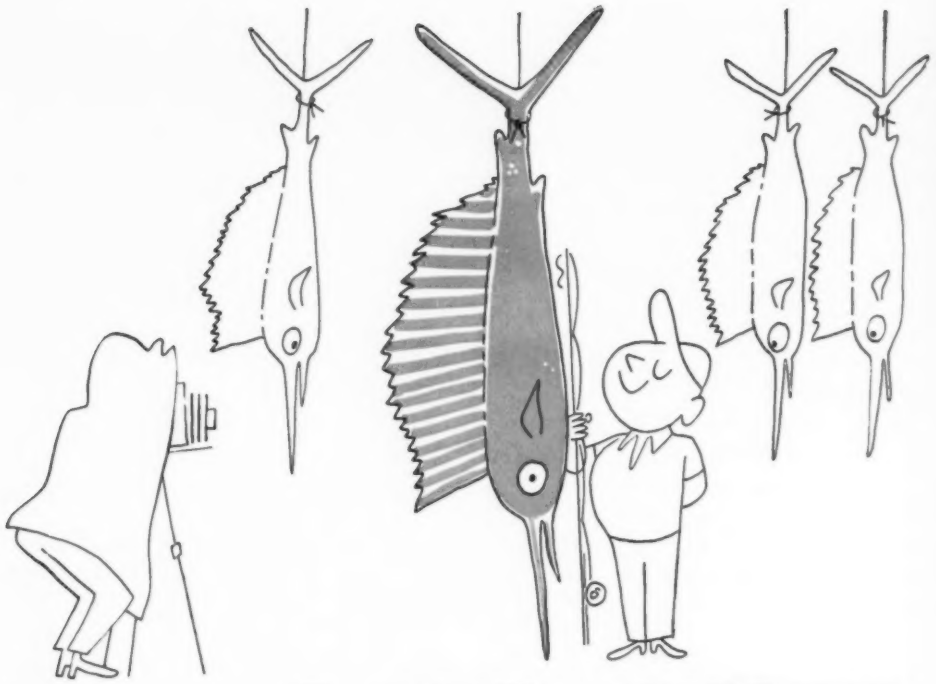
Every piece of H-A Cosmeticware is designed for the most efficient packing, but production-line performance is not enough. Sales performance is an integral part of every blueprint.

Maximum display space—maximum label space—plus glistening glass quality that gives sparkle to your product—these are the extras that are planned in every H-A working drawing.

Economical, lightweight glass containers, manufactured in an H-A factory near you, are essential sales helps.

HAZEL-ATLAS GLASS COMPANY

WHEELING, WEST VIRGINIA



"Gee! I bet that's A NORDA ORIGINAL"

You can bet on a NORDA ORIGINAL to make your product stand out and sell.

A NORDA ORIGINAL has a different, distinguished bouquet. It's a modern, old-fashioned odor—spicy-fresh, exciting, alluring.

Choose your own NORDA ORIGINAL with the assurance it's yours, it's unique. It will help you create new toilet goods and cosmetics nobody else can make or match.

Norda, *first ever to talk sales scents*, hopes you will test and try a A NORDA ORIGINAL. Just ask for the smell that will sell. Send for your convincing *free samples* today.

NORDA MAKES GOOD SCENTS

Norda ESSENTIAL OIL AND CHEMICAL COMPANY, INC.
601 West 26th Street, New York 1, N. Y.

CHICAGO • LOS ANGELES • ST. PAUL • MONTREAL • TORONTO • HAVANA • MEXICO CITY • LONDON • PARIS

Smith-Dorsey Sales Meeting

Approximately 120 salesmen and executives of the Smith-Dorsey Co., division of the Wander Co., were present at the national sales meeting which the company held in Lincoln, Neb., from September 23 to 26 at the Cornhusker Hotel. Guest speakers of the meeting were Dr. R. G. Gustavson, Chancellor, University of Nebraska; Dr. George Valley, chief bacteriologist for Bristol Laboratories; Victor Johnson, manager of the chemical division, Bristol Laboratories; and Dr. W. H. Alexander of Oklahoma City.

National Sales meeting of Smith-Dorsey held in Lincoln, Neb., September 23-26 at Hotel Cornhusker, attended by some 120 salesmen and executives. Highlight of the evening was presentation of engraved watch to F. W. Misch, general manager, for 25 years of service.

Mohlman Retires—Package Mach.

Having completed 33 years with the Package Machinery Co. George A. Mohlman on October 1 retired from active service, having been chairman of the board. At that time he was elected chairman emeritus of the board of directors of the company. He first became associated with Package Machinery in 1918, when he joined the New York office sales force; in 1926 he was elected a second vice-president, and a year later, vice-president. He moved to Springfield, Mass. in 1937 to assume additional company responsibilities and was elected president in 1942.

GEORGE A. MOHLMAN

Taw Promoted by McKesson

Dudley J. Taw, formerly sales manager of the Boston division of McKesson & Robbins, Inc., has been promoted to district drug sales manager for the eastern region, replacing Vern V. Barnes who has become division manager of the company's Newark division.

Reames on Upjohn Medical Staff

Dr. Harold R. Reames has joined the medical staff of the Upjohn Co. and will be associated with the department of clinical research.

Join Fritzsche 25-Year Club

Charles W. Schmied, maintenance department, Fritzsche Brothers, Inc.; Nils H. Johnson, compounding laboratory; Edward P. McDonough, order department; and Mrs. Theresa M. Spoerer, secretary, were all added to the company's 25-year club on October 2 during a dinner at the New York Athletic Club. Participating in the celebration were the company's executive officers, headed by F. H. Leonhardt, president, and all but the out-of-town active members of the Fritzsche Quarter of a Century Club. Active membership in the club now stands at 35, which represents about 12 per cent of the firm's personnel.

EDWARD BILEK

Bilek Promoted by Somnyl Pharmacal

Edward Bilek has been appointed general sales and promotion manager of the Somnyl Pharmacal Corp. of America. He had for many years been associated with Lehn and Fink Products Corp. in an executive capacity.

Pletcher with Penick

Harold E. Pletcher has been appointed assistant production manager of S. B. Penick & Co. He had previously been production manager of the Ansco division of General Aniline & Film Corp.

New Amer. Can Plant

The American Can Company's new Harbor plant in the Wilmington district of Los Angeles was officially opened September 28 by company executives from New York and the West Coast and by civic and governmental leaders.

W. W. Roberts, Canco's West Coast vice-president, led the ceremony which started the can lines rolling. R. K. Frederick, manager of the new plant, said production at first will be devoted almost entirely to cans for fish packers, especially the tuna fisheries. Other company executives participating in the ceremonies were R. L. Eddy, assistant to the vice-president; A. C. Staley, manager of sales; A. T. Augensen, manager of manufacturing; R. C. Stolk, sales division manager; W. O. Eldredge, manager engineering department, all of the Pacific division; Alexander Black, Southern California district sales manager; and G. T. Bergstrom, manager of the company's metal and fibre container factory, Los Angeles.

Tintair Executive Promotions

Tintair has promoted three executives to newly created posts of second vice-president, according to Martin L. Straus II, president and chairman of the board. The appointees are Nat Kalech, who has become second vice-president for field sales management; Louis Lerner, second vice-president for product development; and Henry Pyt, second vice-president for manufacturing. Mr. Lerner will continue to direct activities at the company's Consumer Research Bureau, the Tintair Research Laboratories and Product Development, and the Quality Control Center.

Danco—Zoda

G. Peter Danco, son of Gerard J. Danco, married Elaine Grace Zoda on October 6 in the St. Joseph's Catholic Church, West Orange, N. J.

Bottles by

FOSTER • FORBES

Glass Packaging of Distinction

FOSTER-FORBES GLASS COMPANY, MARION, INDIANA, U.S.A.

SALES OFFICES

KANSAS CITY
DETROIT
CHICAGO
CLEVELAND
MILWAUKEE
CINCINNATI
LOUISVILLE
ST. LOUIS
ST. PAUL
NEW YORK
MEMPHIS
HAVANA, CUBA

KENNETH W. HARTLEY

FRANK A. MURDOCK

WILLIAM KISSEL

Swain Appointed by National Drug

William Swain, formerly with the medical research department of Smith, Kline & French, has been appointed medical director of the research department of the National Drug Co. He will handle all clinical trials and contacts.

Wernet Appointed by Parke, Davis

C. Richard Wernet has been appointed assistant manager of the retail sales promotion department, according to Graydon L. Walker, director of U. S. and Canadian sales for Parke, Davis & Co. He will be associated with George A. Bender, department manager.

Hill Named Marketing Supervisor

Bert L. Hill, sales supervisor in the Baltimore sales district of Sharp & Dohme, Inc., has been named products marketing supervisor, according to John G. Bill, vice-president. He succeeds T. J. Midkiff who was recently appointed general manager of Sharp & Dohme (Canada) Ltd., Toronto.

Vick Executives Promoted to V.P.

Edward P. Anderson, George C. Eichhorn, and Kirby Peake, general managers respectively of the international division, manufacturing division and Vick Products division of Vick Chemical Co., were appointed presidents of their units at a meeting of the board of directors last month, according to E. L. Mabry, president.

Dr. Maurice L. Moore was elected by the board to the position of vice-president.

Schneider Named Sales Mgr.

Benjamin Schneider has been appointed general sales manager of the Harrower Laboratory, Inc. He has served as district sales manager and eastern divisional sales manager with the organization for five years.

Dodge & Olcott Appointments

Kenneth W. Hartley has been appointed manager of the Chicago branch office of Dodge & Olcott, Inc., succeeding Frank S. Topper who recently terminated 31 years of service with the company. William Kissel has been transferred from the Dallas office to that in Chicago, and Raymond E. Williams has left the New York office staff to become manager of the foreign sales department, replacing Wilbur S. Deming who has resigned to enter the brokerage field.

Frank A. Murdock has been appointed branch manager in San Francisco, succeeding Chester Bryson, who has resigned to enter the field of ceramic tile sales. Mr. Murdock's territory will also include Washington and Oregon, and Vancouver and Vicotiria in British Columbia.

Named Lever Research Director

Dr. L. B. Parsons has been promoted to director of research and development for Lever Brothers Company, according to W. H. Burkhart, vice-president in charge of production. He succeeds Dr. Theodore H. Rider, who resigned recently because of illness. Dr. Parsons joined Lever as a research supervisor in 1939 and served successively as chief chemist, manager of basic research laboratories, and assistant director of research and development. He will remain at the Lever Research laboratories in Cambridge, Mass.

Rice Appointed by CSC Pharm.

Robert L. Rice has been appointed north central regional manager of C. S. C. Pharmaceuticals, according to M. M. Ricketts, general manager and will make his headquarters in Chicago. During the past three years he has been central regional manager for Smith, Kline & French Laboratories.

Upjohn Sales Conferences

Eleven sales managers and divisional sales managers of the Upjohn Company attended a three-day sales conference, in early October at Brook Lodge, Augusta, Mich. W. F. Allen, vice-president and director of sales, and R. S. Jordan, general sales manager, assisted by other members of the home office sales staff, conducted the meeting. Those attending the meeting were Arthur Sailer, Minneapolis; J. R. Macrae, Kansas City; F. W. Griffis and G. A. Crosby, Memphis; R. P. Sellman, San Francisco; L. B. Austin and K. B. Zorn, Los Angeles; E. H. Coleman, New York; L. J. Haskett, Toronto, Ontario; and H. B. Roberts, export sales manager, and G. V. Littig, divisional sales manager, Latin American Sales, both of Kalamazoo.

A second meeting opened October 8 which was attended by F. E. Fox and O. E. Hysore, Philadelphia; J. A. S. Rodda and W. G. Roberson, Portland; J. W. Schma and D. L. Miller, Chicago; W. C. Sugg, Atlanta; V. L. Smith, Cleveland; H. W. Bowdoin, Boston; W. M. Arthur, Dallas; and A. C. Scott, Kalamazoo.

Doerr Elected President NWDA

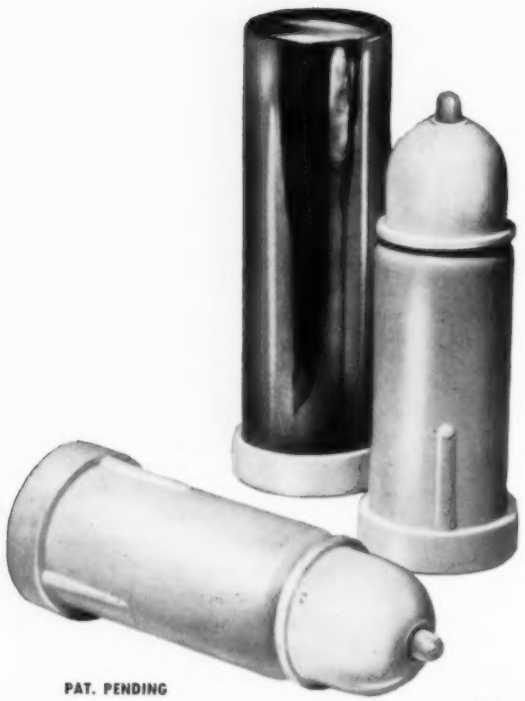
Charles D. Doerr, vice-president of McKesson & Robbins, Inc., was elected president of the National Wholesale Druggists Association at its annual meeting in Houston last month. He has been chairman of the association's board of control for the last two years, a member of the board for the last three years, and was previously third vice-president.

Miss Neushaefer in Europe

Helen Neushaefer, president of Helen Neushaefer Cosmetics, flew to Europe last month to arrange for the distribution of her cosmetics in England and France.

RICHFORD SPILLPROOF PERFUME FLACONS

The magic, purse-sized perfume flacon still making sales history is now joined by a new Richford Creation, also destined for fame.



PAT. PENDING

RICHFORD TOUCH-N-FLO*

PURSE DISPENSER

*TRADE MARK

The one perfect purse container for Lotions, Cream Sachets, Liquid Soaps, and Deodorants, etc.

TOUCH-N-FLO will not leak, yet the contents flow easily with a gentle touch to the skin. Unbreakable plastic bottle and sure-acting dispenser handsomely covered with a snug gold metal cap. Contents 10 cc.

Write for Samples and Prices.

THE RICHFORD CORPORATION
251 FOURTH AVENUE NEW YORK 10, N. Y.

New Branch Warehouse for S & D

Construction of a new branch warehouse for Sharp & Dohme, Inc. is now under way at the corner of Plymouth and Bryant Avenues, Minneapolis, according to Elmer W. Metzger, director of domestic branches. It is expected to be completed by March of next year and will replace the firm's present Minneapolis quarters at 607 Fifth Ave. South. The one-story brick and steel building will contain approximately 18,000 square feet of floor space.

R. W. Quandt is manager of the branch, and W. N. Stebbins, district sales manager.

DR. GRAHAM W. McMILLAN

McMillan Heads CSC New Division

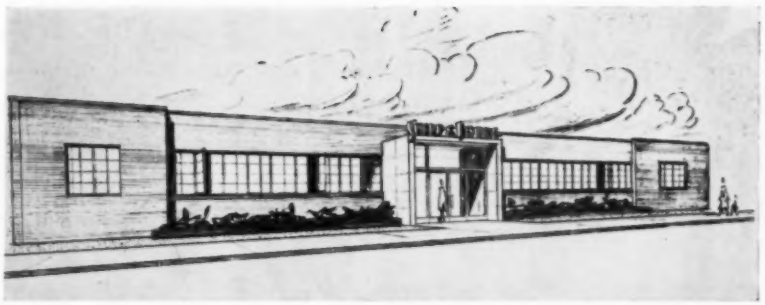
Dr. Graham W. McMillan has been appointed manager of the newly created production development and quality control division in the production department of Commercial Solvents Corp. according to Maynard C. Wheeler, vice-president.

National Drug Branch Offices

The National Drug Co. recently opened two new branch offices, one in St. Louis at 615 South Taylor Ave., and the other in East Los Angeles at 2075 South Atlantic Boulevard. Theodore S. Besch is manager of the S. Louis Branch, heading a group of eleven persons, and J. A. Omdal is in charge of the other branch which will service the West Coast.

Hinde & Dauch Data Book

The fourth edition of the Hinde & Dauch data book, "How to Select Vending Displays that Increase Sales," is now available without obligation from the Hinde & Dauch Paper Co., Sandusky, Ohio. It contains information on the proper and economical way of merchandising products at point of purchase through the use of "Selmor" Merchandise Vendors.



Architect's drawing of modern branch warehouse being constructed for Sharp & Dohme, Inc. in Minneapolis at Plymouth & Bryant Avenues. It is expected to be ready by March, 1952.

Nat'l Research Corp. Expands

The National Research Corp. will build additional plant facilities on Charlemont St., Newton Mass., according to Richard S. Morse, president, which will be completed early in February. It will be occupied by the equipment division which is under the management of H. C. Weingartner, vice-president.

Executive Promotions by Hooker

Bjarne Klaussen has been elected executive vice-president of Hooker Electrochemical Co., according to E. R. Bartlett, chairman, and Donald E. Springer has been appointed chief engineer.

BJARNE KLAUSSEN

New Production Building For Ciba

Ciba Pharmaceutical Products, Inc. has completed a new production building at Summit, N. J., which contains more than 100,000 square feet of floor space. It will have the most modern facilities available for pharmaceutical production and will provide a centrally located warehouse area.

Stanton Chemicals Changes Name

The name of Stanton Chemicals Co. has been changed to Stanton Sales Co. There has been no other change in the structure of the business.

Ciba Refresher Course

Forty-eight representatives of Ciba Pharmaceutical Products, Inc., recently attended a two-week advanced training and refresher course at the Robert Treat Hotel, Newark, according to Vincent A. Burgher, vice-president in charge of sales. The meetings were directed by Frank H. Pratt, sales manager of Ciba, who was assisted by Howard M. Bilden, assistant sales manager, and Joseph Brownlee.

Lectures by members of the Ciba research staff and medical service division were delivered on such Ciba products as pyribenzamine, privine, trasentine, and metandren linguets, and the new products of itrumil and elkosin.

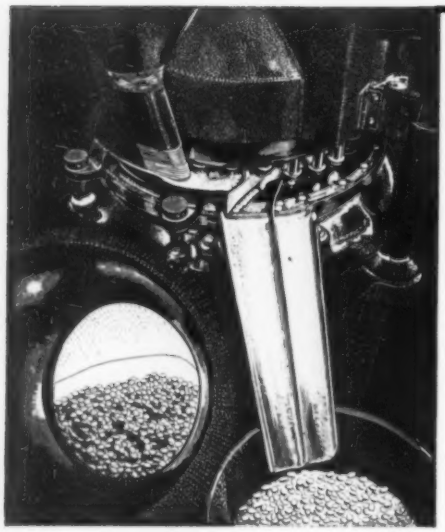
Di Cyan Re-Elected President

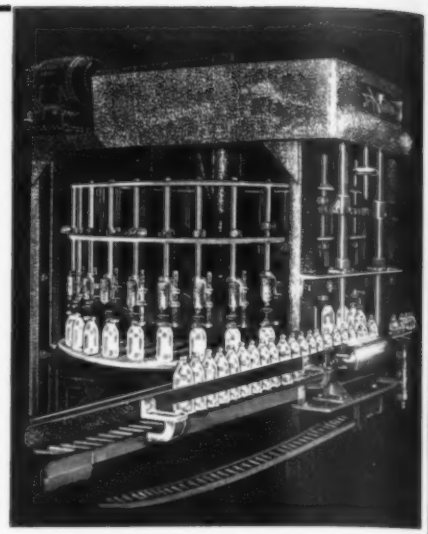
Dr. Erwin Di Cyan director of Di Cyan & Brown Chemical Consultants, was re-elected president of the Association of Consult-Chemists & Chemical Engineers for one year at the annual meeting on October 23. Other officers are Earl D. Stewart, vice-president; William C. Bowden, Jr., secretary; and Dr. F. D. Snell, treasurer.

Eisenkraft with Fleuroma

Albert E. Eisenkraft has joined Fleuroma, Inc., as a member of the sales staff.

ALBERT E. EISENKRAFT





Finer service for you through concentration

on fewer fine chemicals

One of our specialties:

ammonium chloride

A DUAL-PURPOSE CHEMICAL

You are served better and *in more ways* when we keep our production of fine chemicals to less than one hundred.

Let us see how this applies with regard to Ammonium Chloride:

Concentration enables us to offer Ammonium Chloride to you as a dual-purpose product. It is physically uniform—made in the proper range of particle size to permit direct compression into tablet form or to go into solutions quickly. This dual-purpose feature eliminates duplicate inventories for you, and helps reduce your production costs.

Concentration enables us to offer you an Ammonium Chloride whose chemical purity is precisely controlled from raw materials to finished product. It is produced in stainless steel equipment as an added safeguard to purity.

Whatever your requirements for Ammonium Chloride—call on Baker. Samples and prices will be forwarded gladly upon request. Address: *Fine Chemical Division*, J. T. Baker Chemical Co., Phillipsburg, N.J.

Baker CHEMICAL

Baker Chemicals

REAGENT • FINE • INDUSTRIAL

Conner Named Lab. Director at SKF

Dr. Robert T. Conner has been appointed director of the research and development laboratories of Smith, Kline & French Laboratories, in which position he will be directly responsible for the operations of the chemical, biological, and pharmaceutical research laboratories, working in cooperation with SKF's director of research and director of development. He succeeds Dr. Maurice L. Moore, who recently resigned to join another company.

Mortimer W. Pratt has been named assistant to the vice-president in charge of research and development and has been succeeded by Harold A. Clymer as development administrator. Mason Fernald fills the new position of research administrator.

DR. ROBERT T. CONNER

Swan Retires After 52 Years

Charles A. Swan, general manager of the Boonton Works of Norda Essential Oil and Chemical Company, retired November 1, after fifty-two years in the essential oil industry. Born April 17, 1883 in New York, Mr. Swan was educated in Pratt Institute, Brooklyn, having joined Antoine Chiris Co. in 1898 when he was fifteen years old. He was general manager of the works for Chiris from 1914 to 1924, and president of Chiris from 1924 to 1932, when he resigned to become associated with Organic Products, being secretary and a member of the board of the latter firm from 1933 to 1939. During this time he was also works manager of Aromatic Products, Inc. In 1939 he resigned from Organic Products to become associated with Norda where he remained until his retirement.

CHARLES A. SWAN

Mr. Swan is a member of the American Chemical Society, Delta Commandery 26, K. T. (past Commander), Newark Consist, S. P. R. S. 32nd degree Salaam Temple, A. A. O. N. M. S., all of New Jersey.

Weisman on European Tour

J. L. Weisman, manager of export sales of the Felton Chemical Co., Inc., is spending several months at the offices of Felton Co., France (S. A. R. L.) in Versailles consulting with the directors of the French company. He also is planning to visit Felton agents in Switzerland, Holland, Belgium and Sweden.

Sands Joins CSC Pharmaceuticals

Frederic C. Sands has been appointed sales manager of C. S. C. Pharmaceuticals, a division of Commerical Solvents Corp., according to M. M. Ricketts, general manager of the division. He had formerly been assistant sales manager of the antibiotic division of Chas. Pfizer & Co., Inc.

FREDERIC C. SANDS

Packaging Machinery Elections

The Packaging Machinery Manufacturers Institute, at its 19th annual meeting, at the Mid Pines Club, Southern Pines, N. C., from October 13 to 17, elected the following officers for the coming year: G. Radcliffe Stevens, president, Elgin Mfg. Co., as president; Palmer J. Lathrop, president, Cameron Machine Co., first vice-president; and Edwin H. Schmitz, general sales manager, Standard-Knapp division, Emhart Mfg. Co., second vice-president.

Three new directors were elected: Mrs. Helen Horix Fairbanks, president, Horix Mfg. Co.; Edwin E. Messmer, vice-president Amsco Packaging Machinery, Inc.; and Herbert H. Weber, president, H. G. Weber & Co. Inc.

Elected V.P.'s at J & J

John F. Kiley, general line sales manager, and Edward G. Gerbic, director of merchandising, Johnson & Johnson, have been elected vice-presidents of that company, according to George F. Smith, president.

George Uhe Co.'s 30th Year

The firm of George Uhe Co., New York, entertained members of the drug, chemical, essential oil and spice trades October 26 in celebration of the company's 30th anniversary. Recently housed in beautiful new quarters in the Port of Authority Building, 76 Ninth Ave., on hand to greet the guests were Mr. Uhe· Charles Fishbeck, in charge of essential oils; George Schuster, spices; and Henry Interdonatti, chemicals.

Robert Returns from 3-Month Trip

Henri Robert, director of the de Laire division of Dodge & Olcott, Inc., recently returned from a 3-month visit to Paris. He spent most of the time working on new perfume specialties at the laboratories of Fabriques de Laire, in Issy le Moulineaus, and Calais.

McGuire With Geigy Pharmaceuticals

T. I. McGuire, formerly division sales manager of E. R. Squibb & Sons, is now associated with Geigy Pharmaceuticals, division of Geigy Co., Inc., according to Arthur F. Peterson, in charge of sales and distribution. Mr. McGuire will be responsible for the Pacific Coast operations of the company.

vonHofe Returns from Trip

George vonHofe, president of New Jersey Machine Corp., returned home October 4 after spending seven weeks investigating western European markets and acquiring latest data on post-war improvements in packaging and box-making equipment. Accompanied by his wife, he visited England, France, Italy, Switzerland, and West Germany.

Dollinger Appointed by Glyco

Jack H. Dollinger has been appointed sales manager of the Glyco Products Co., Inc. He has been acting as assistant sales manager and technical assistant to the executive vice-president since 1946.

Thompson Gets Achievement Award

Dr. Marvin R. Thompson, president and director of research of Marvin R. Thompson, Inc., has been voted the outstanding achievement award of the University of Minnesota, which is reserved for former students of the institution who have attained eminence and distinction. The University presented this award at the Minneapolis Auditorium on October 18.

Clark Named Warner-Hudnut Sec.

Robert B. Clark has been elected secretary of Warner-Hudnut, Inc., according to Elmer H. Bobst, president. He takes over the interim duties assumed by L. A. Klein, who continues as vice-president and treasurer.

ROEERT B. CLARK

Biederman with Strong Cobb

John R. Biederman has joined Strong Cobb & Co., Inc. as sales consultant, with headquarters in Cleveland, according to H. A. Strate, vice-president in charge of sales.

Sharp & Dohme Appointments

Eugene L. Kuryloski, general manager of Sharp & Dohme (Canada) Ltd., Toronto, has been named assistant to the director of field operations of Sharp & Dohme, Inc. according to John G. Bill, vice-president of the parent company. T. J. Midkiff, products marketing supervisor, has been named as successor to the general manager's post of the Canadian subsidiary.

Polarome Mfg. Co. Set Up

William O. Bruell has organized Polarome Manufacturing Co., Inc., manufacturer of perfumers' raw materials, with offices and laboratories at 73 Sullivan St., New York 12. The telephone number is COrtlandt 7-2092.

Poland Named Sergeant Pulp V.P.

George W. Poland, Jr., has been elected a vice-president of E. M. Sergeant Pulp and Chemical Co., Inc., according to Rudolph Aeberle, president. He has also become president of the New Jersey subsidiary, Sergeant Chemical Co. of Newark. Mr. Poland recently resigned as assistant sales manager of Stauffer Chemical Co., where he had been for 15 years.

CSC Appointments

T. P. DeFarkas has been appointed general manager of the export division of Commercial Solvents Corp., according to H. J. Henry, vice-president of the products division. William D. Ticknor, Jr., who has been in CSC's export division since 1946, has become assistant general manager.

T. P. DEFARKAS

Dixon Becomes Gair Art Director

Kenwood Dixon has been named art director of Robert Gair Co., Inc., according to Wray H. Callaghan, sales manager of the folding carton division. He will coordinate art efforts for the company to maintain a high level of quality in material produced in Gair plants.

Breckenridge with Ayer

Robert P. Breckenridge has been appointed advertising and sales promotion manager of Harriet Hubbard Ayer, Inc., succeeding D. N. Jones, who has resigned. He had formerly been with Gemex Corp.

New Booklet on Waxes

International Wax Refining Corp., Valley Stream, N. Y., has released the fifth edition of its booklet, "Dependale Waxes for Industry." The publication lists specifications and properties of waxes and wax specialties made by the company, and is available by writing International at East Hawthorne Ave.

Packaging Institute Elections

The Packaging Institute elected as president for the coming year Robert deS. Couch of General Foods, New York, Mr. Couch now being on leave from the company to serve on the NPA. Vice-presidents, also elected at the thirteenth annual forum held last month in New York, are: R. Chester Reed, of the Texas Company, and F. S. Leinbach, of Riegel Paper Company.

Vitamin Foundation Appointments

Alfred M. Hanssen has been appointed secretary of the National Vitamin Foundation, Inc., and Dr. Robert S. Goodhart has been promoted to executive vice-president, according to Dr. Gifford Upjohn, Foundation president.

Frederick W. Fitch

Frederick W. Fitch, founder of the hair tonic firm, died October 1 at the age of 81 after a year's illness. The business began in a barn at Boone, Iowa, in 1892 and was moved to Des Moines in 1917. Later, plants were established in Bayonne, N. J., Los Angeles, Toronto and Jackson, Miss. Mr. Fitch operated the company until 1949, at which time he sold it to Groves Laboratories for $2,000,000.

He is survived by his wife, Mrs. Gertrude Fitch, two sons, two daughters, and two brothers.

Logan M. Kerr

Logan M. Kerr, Merck & Co., Inc., died October 17 at his home in Rahway, N. J., at the age of 57.

Lyman S. Lloyd

Lyman S. Lloyd, eastern representative for Wilson Laboratories, and vice-president of Alex C. Fergusson Co., Philadelphia, died suddenly October 9 of a heart attack which struck him while on the golf course. He was fifty-three years old.

Albert E. Mullen

Albert E. Mullen, general manager of the American Perfumers Laboratories, Inc., Division of Avon Products, Inc., died October 29. Mr. Mullen, who was one of the pioneers in the cosmetic industry, was associated with Avon Products since 1934. He was a past president of the New Rochelle Club, and a member of the Cardinal's Committee of the Laity. He is survived by his widow, a daughter, two grandsons, and five sisters.

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Paints, enamels, printing inks . . . in these and other applications, improved suspension means increased profits from orders and *re-orders* of your product.

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INDUSTRIAL CHEMICALS DIVISION, Dept. DC 11

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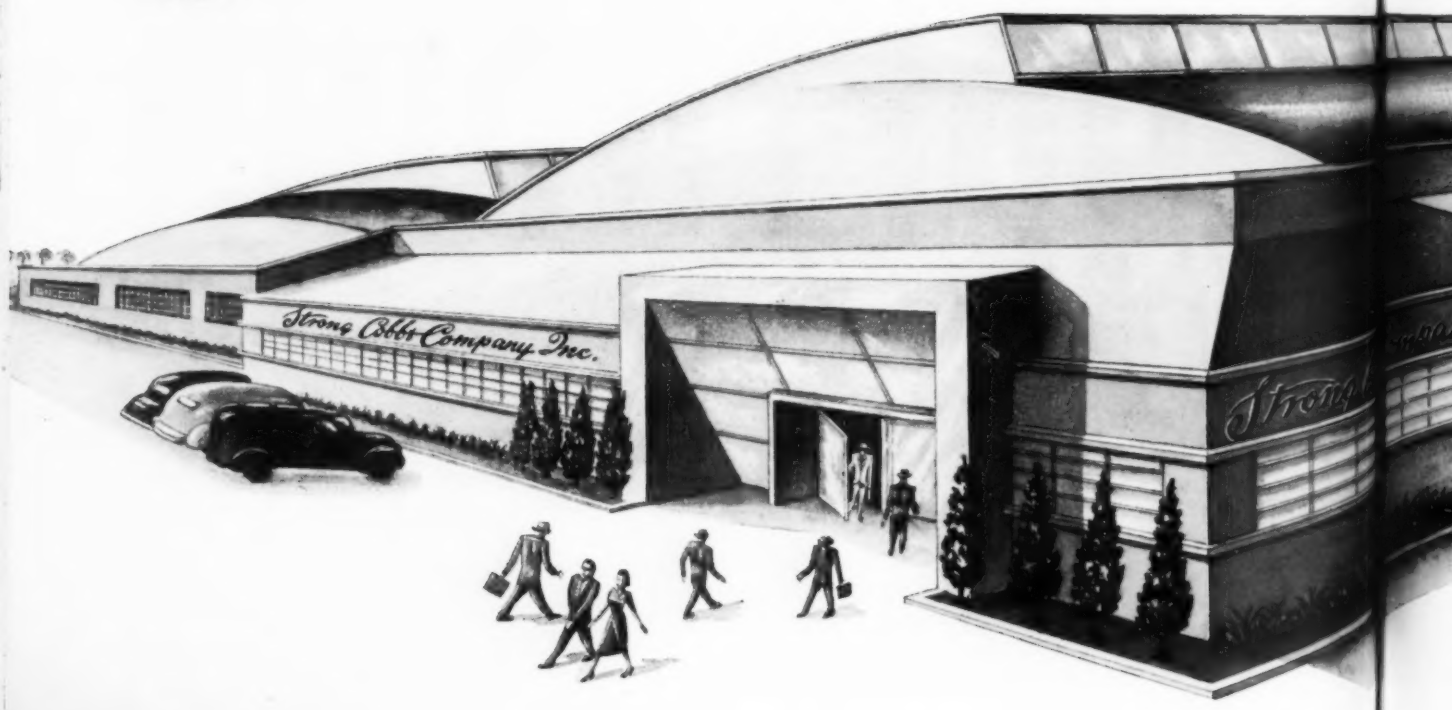
ANNOUNCING
THE NEW
CALIFORNIA PLANT OF

Strong Cobb



Originators and Developers of the
AMPIN for Automatic, Subcutaneous*
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Marking another step forward in the continuous expansion of the country's oldest and largest private formula manufacturer, a magnificent new plant in the heart of manufacturing Los Angeles will soon be ready to fabricate, package and distribute products throughout the West.

64,000 SQUARE FEET

64,000 square feet in size, our new California plant is of ultra-modern design in every respect... fully equipped with the latest pharmaceutical precision equipment and machinery to handle volume production. Our own railroad siding will expedite greatly the arrival of raw materials and the fast delivery of finished products, for which Strong Cobb is already famous.

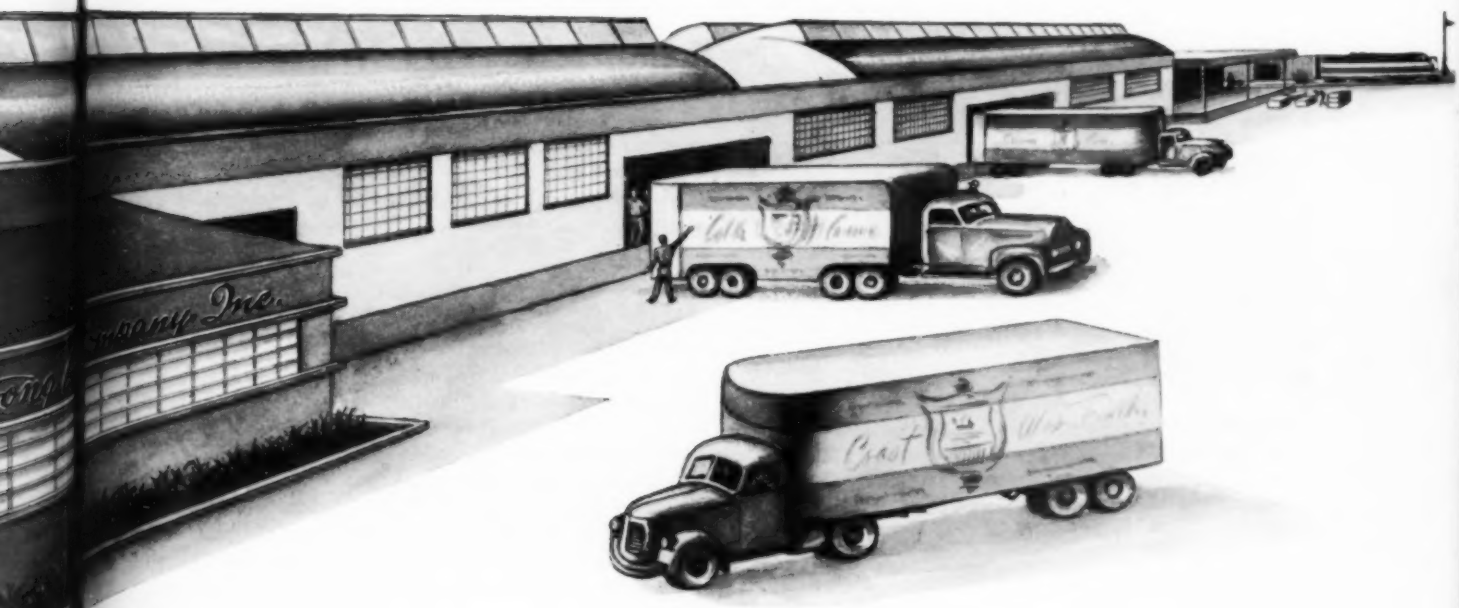
OPENING ABOUT FEBRUARY 1, 1952

The opening of our new California plant is in keeping with the development of regional manufacturing trends. In addition to faster delivery of your products, lowered shipping costs will make dealing with Strong Cobb more desirable and profitable than ever!

To new friends and customers considering Western manufacture, we look forward to a most pleasant business association. And, of course, the inspection of our California plant by both old and new friends is earnestly invited!

TABLETS, CAPSULES, LIQUIDS, CREAMS

Discuss it with our Technical Sales Director—the best friend your product has!



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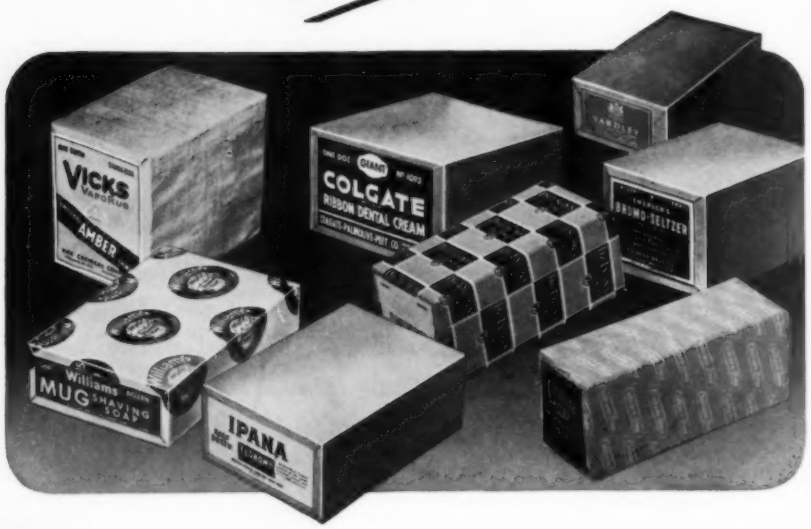
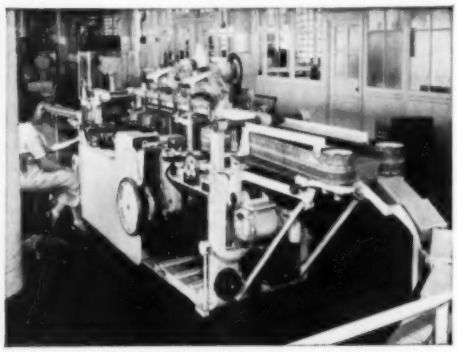
Thousands of Dollars SAVED

by adopting MACHINE BUNDLING





One of our Model F-6 bundling machines in the plant of Bristol-Myers. The bundler is fed by conveyor from two lines of tube-filling and cartoning machines. Assembler at infeed of bundler groups the cartons in two layers of three each before wrapping.

Write for complete information

The number of manufacturers who have adopted machine bundling is truly impressive – and growing steadily. The reason is not far to seek. MACHINE BUNDLING MAKES BIG SAVINGS. First, on material costs, for it replaces cardboard boxes or fibre containers with economical kraft paper. Second, on labor, because one machine will produce up to 24 bundles per minute. And when you are pressed to get out the goods, this speedy method makes costly overtime unnecessary.

Suited to Many Products

Bundles, as made by our machines, are successfully carrying such products as soap, books, photo film, electric fuses, crackers, tobacco, tooth paste, cartons containing bottled goods, etc. Yes, the bundle is surprisingly strong and withstands handling.

The machine assembles the packages in any desired arrangement selected to produce a conveniently-shaped bundle and seals them drum-tight in strong kraft paper. Also attaches end seals.

Dealers and chain store operators welcome this convenient and handy method of stocking goods in dozen lots. And the money machine bundling saves over buying boxes usually pays for the machine in less than a year. That's 100% on your investment!

PACKAGE MACHINERY COMPANY • Springfield, Massachusetts

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DENVER LOS ANGELES SAN FRANCISCO SEATTLE TORONTO MEXICO, D.F.

PACKAGE MACHINERY COMPANY

Over a Half Billion Packages per day are wrapped on our Machines

Management Forum

by Francis Chilson
INDUSTRIAL CONSULTANT

Records Broken

Your consultant is proud of having participated in the establishment of two new plant construction records. The first one: the erection of the new Cutter plant in Chattanooga, Tenn.; the second the establishment of the new Pacquin plant in Glen Rock, N. J.

I shall discuss the Cutter plant first because it is the largest of the two projects and because it entailed the erection of an entirely new plant on a new site. The record is this: in a period of eight months the plant was erected, the equipment installed and test operated with a new crew.

So far as I know that record has never even been remotely approached in the drug industry. It has rarely been equalled in any other industry at any time. And it was done with virtually no overtime. An official of the Austin Company, which built the Cutter plant, told me that their previous record was seven months for the completion of one of the big aircraft plants during World War II but that job was carried on straight around the clock.

Of course the Cutter plant was not completed down to the last bit of landscaping and painting; another month was required for that. But the official opening was November second, at which time the last bit of spit and polish was applied. Total elapsed time from the day the first bulldozer was unloaded at the site to final finish and commercial operation—nine months and seven days. Just the right gestation period.

Naturally I am very proud of my part in this job and I am fully aware that this record could never have been accomplished without the full and unreserved cooperation of everybody in the Cutter organization from Bob Cutter all the way down the line to the draftsmen in the engineering department.

In this project I think that Bob Cutter as president of the company displayed singularly good judgment in giving us our head and driving us with a loose rein. (Of course we all knew that he had the bull whip clutched in his scrawny fist—just in case.) Once the site had been purchased, he accepted our recommendation to give the job to a big building organization without competitive bidding—thereby saving three or four months' time. He didn't interfere with us in any way or offer any opinions as to the type or size of building to be erected or the type and kind of equipment to be utilized. Once we gave him the initial budget estimate he gave us free rein with just a reminder that if we exceeded the budget we'd find our scalps drying in the trees in front of the plant. (It was for this reason that we omitted trees from the landscaping scheme.)

I think this attitude is remarkable. In many previous similar experiences I have had to waste a lot of time preparing detailed preliminary drawings, getting competitive bids and explaining detail by detail exactly what was to be done, to company presidents, boards of directors and God knows how many committees, most of whom were non technical men and had only a very hazy—if any—idea of what I was talking about.

Wasting time on competitive bidding is the bunk in this day when all industrial buildings are erected by union labor with standardized wage scales and with materials which with few exceptions are uniformly priced everywhere. Actually big builders often will pass on discounts they get on materials through quantity purchases. Some materials such builders actually carry in inventory. In the Cutter instance Austin owned the standard steel construction units that were employed in the building. Moreover big builders have many sources of supply and can get service because of quantity purchases that a small local builder could never get. It is true that a big builder has a higher overhead than a small operator. But the main thing is that he can get the job finished on something like scheduled time and this factor more than offsets the overhead differential.

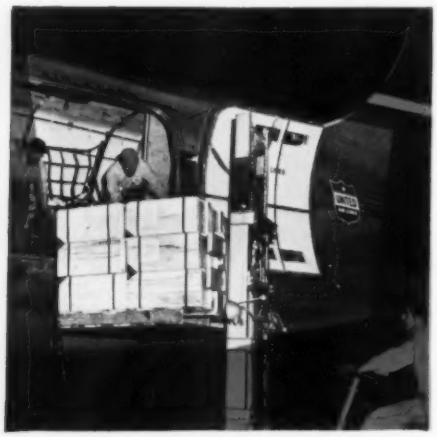
It would not be proper to close this comment without a word of praise for Howard Winegarden, Cutter's V.P. in charge of production. He too, like Bob Cutter, refrained from interefering with Bob Sandberg, general

Front Line for Health!

A few of the Stokes Rotary Tabletting machines at Abbott Laboratories, North Chicago, Illinois.

Front lines of war or flood, fire or hurricane, depend on production lines for strength, resistance, and restoration.

Abbott Laboratories depends on Stokes equipment for production of many pharmaceuticals including Halazone, the Army's reliance for safe drinking water.



Part of a shipment of 25,000,000 Halazone Tablets being loaded in cargo transport at Chicago for shipment overseas.

Among many Abbott products, Halazone—of which Abbott is the country's leading producer—makes special demands upon reliability in production because of its truly vital importance in the control of drinking-water contamination.

Dependability is a primary need on pharmaceutical and biological production lines. Stokes tabletting presses, grinders and granulators, freeze-drying equipment, tube-filling and sealing machines are among the production tools for Abbott's widely known line of pharmaceuticals.

Write for full information on Stokes pharmaceutical equipment or send for Catalog.

STOKES

STOKES MAKES
Plastics Molding Presses,
Industrial Tabletting
and Powder Metal Presses,
Pharmaceutical Equipment,
Vacuum Processing Equipment,
High Vacuum Pumps and Gages,
Special Machinery

F. J. STOKES MACHINE COMPANY, 5932 TABOR ROAD, PHILADELPHIA 20, PA.

plant manager of the company on whose broad shoulders rested the responsibility for getting the plant built and into operation. Howard, once he was satisfied that maximum sterility and safety conditions could be maintained in the equipment, procedures and layout, gave us the green light. And as for Sandberg that big, supposedly stubborn Swede; he's one of the most capable and amenable guys I ever worked with. Of course it must not be inferred that all was sweetness and light. We had some lusty brawls in some of which I got licked; in some he did. But I never worked with a guy who could back away from a position on which he had asserted himself positively, so swiftly and so gracefully once he was confronted with indisputable facts. That I like. (Here at long last I find myself saying something complimentary about that big lug. Jeze, I must be sick!)

Now the Pacquin job. This problem differed from Cutter's in that the company purchased a plant that had been built in 1949 and our job was to maintain full production in the old plant while renovating and removing into the new. Although the new plant is a beautiful, air conditioned building it had to be renovated to make it suitable for Pacquin's use. A large truck dock had to be built; the boiler room had to be rearranged and another boiler installed; complete new service lines had to be installed and a manufacturing mezzanine had to be built. (This does not represent a departure from my one-story thesis. The new Pacquin building is considerably smaller in point of usable floor space than the old multi-story unit and we felt that the construction of the mezzanine would be quicker to build and less expensive than the construction of a building addition.) Time was of the essence. The company's lease on the old building expired in September; possession of the new building was obtained in June.

Here's the record: The new building was acquired and renovated and the removal from the old to the new was accomplished in less than three months. As a matter of fact the first lotion line began operation in the new plant nine weeks after the acquisition of the building. During this time full production was maintained while the removal was taking place. Only about three full days of production were lost. The scale of the job may be indicated by the fact that six packaging lines are employed; five of them automatic.

This isn't all. While it was expected that full production would be maintained, it was also expected that regular, seasonal special packaging for Christmas would begin in August on schedule, and, to simplify the job, the sales department decided to launch a big advertising campaign at the end of September on Pacquin's hand lotion and therefore requested an extra amount of production for August and September in excess of the total amount that had been sold during the previous year.

Add to this the fact that the project was to be handled by a new plant manager, Bob Clark, who up to that time had had no previous experience managing a cosmetic plant.

Right now the plant is in full operation although not all of the minor bugs have been ironed out.

In some ways this was a more difficult job than the Cutter job because it is less difficult to equip a new plant with new equipment than it is to keep an old one going while you are transferring its equipment to the new plant line by line. Even in the manufacturing department where the processes and the equipment are new some of the old process equipment had to be transferred to the new and operated temporarily to provide cream and lotion to supply the packaging lines as rapidly as they were transferred and set up.

In this case again, as in Cutter's, once the project was launched, the president Bert McShane, placed full confidence in the operating group and gave us the gun. Right from the beginning the top management group, Bert McShane, Ed Austin and Charlie Junot allowed us to run the show our way.

The Pacquin plant is unlike any other cosmetic plant I have seen. Not only are all manufacturing units stainless steel but every unit is mounted on its own scale so that batching is a push button affair. Two men do more now with less effort than ten did formerly. Batches are ten times larger than formerly and the finished product is pumped to the packaging lines. It is an old shibboleth in the cosmetic industry that sensitive emulsions and vanishing type creams cannot be pumped without causing separation. Well, Pacquin is pumping them. It all depends upon the type of pump employed. Incidentally it is an interesting sidelight on the futility of gravity flow that although in the Pacquin plant we have sufficient head room to permit gravity flow, we still must use pumps. Our most troublesome problem was encountered in pumping hot stearic acid. This, as you know, is an s.o.b. to handle. In the Pacquin plant the stearic acid is not weighed out in the cake before melting. It is melted in a bulk tank and the molten stearic acid is pumped to processing units.

Although I had some serious qualms about tackling a major job with a green plant manager, the event proved the futility of the premonition because Bob Clark, not only proved to be a very likable guy to work with but is exceptionally bright, able and cooperative. He's one of the nicest guys I ever worked with. I am proud to be able to finish this job with Bob as one of my best friends.

It would not be fair to close this without a word of high praise for Paul Tartalio, Pacquin's production manager. Paul did a major job organizing the removal of stocks and equipment from one plant to the other. At the beginning I was a bit afraid of Paul's reaction to entirely new processes, utterly foreign to those with which he had been reared. Paul has been with the company many years and it is a fact that old hands are apt to view new processes with a jaundiced eye. Paul didn't hesitate to ask questions or to express his doubts but when they were resolved he'd grin and utter his favorite phrase, "OK. Let's go!"

Both the Cutter and the Pacquin projects had this

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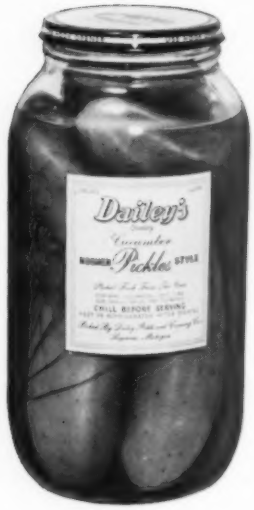

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in common: once the projects had been launched top management refrained from interfering in technicalities about which they knew little or nothing and everybody else cooperated fully to achieve a common end without jealousy and without worrying about who would get final credit for all or any part of the projects.

Proverbs

Everyone having a responsible job in any organization would do well to study—and apply—the wisdom of the proverbs. The proverbs are the epitomized experience of the race. We often repeat them without stopping to think how much they really mean. Unfortunately they are regarded as cliches or platitudes—just sayings that have no real meaning. They are important to you, if you will stop to think about what they really mean. From time to time I'll explain what some of them mean to me.

Last month in my article on nepotism in business I elaborated on the real meaning of "Blood is thicker than water." Re-read that comment on firing the boss' relatives.

This month I shall offer another for you to chew on: "Familiarity breeds contempt."

In this day and age when everybody from the president to the office boy prattles about labor relations, it has become a national habit to coddle labor. Some executives make a serious mistake in being too familiar with their subordinates. There is a vast difference between being friendly and being familiar. I know some plant managers and some company presidents who make a fetish about remembering the first names of all their subordinates. They walk though their establishments patting people on the back and grinning like apes. They don't realize apparently that everyone has a certain innate dignity that is affronted by a too familiar approach. You, yourself, freeze up when you are approached in a too familiar manner by a person whom you do not know well even if he is the boss. You instantly and instinctively detect the insincerity behind the set grin and the pat on the back. You begin to wonder what the guy has up his sleeve. I know several plants where the broad, friendly—meaningless smile—is a matter of company policy and in these plants I have observed a universal lack of respect for the boss and a lack of really sound labor relations.

Good labor relations depend upon firmness, fairness and friendliness and when these are present you have respect which is the foundation of sound labor relations. I have observed that in firms that are doing the best job of labor relations, one never hears the phrase "labor relations" at all. It has always seemed to me that the firms in which the management is doing the best job of running its business with due respect for the rights of everybody concerned, automatically have the best labor relations without worrying about it.

Everybody respects a boss who knows his business and demonstrates that knowledge by getting the business. Everybody respects a boss who when things go wrong will be utterly fair in making judgements regardless of whose ox is gored. Everybody respects a firm boss—even a tough one if he is fair, but nobody respects a vacillating boss who on a show of resistance can be pushed around. He is regarded as a slob. Everybody likes a boss who has an instinctive friendly expression or a smile. They don't expect him to be smiling all the time; they know he has serious problems. But an occasional genuine friendly smile is a wonderful stimulant for morale. People like a boss who can crack a joke occasionally and laugh at one even when it is on him. As Dr. Grote says, "People are people." In his essential humanity the guy down the line is no different from the big boss. He may not have the boss' education, opportunity or brains but he is still a man.

Lost Chord

I found this in my handwritting among my notes for this column:

"Let us not forget brothers,
The toil, the terror, the sweat.
England may forgive others,
But we can never forget."

It would be a good slogan for the escapees from the Russian slave labor camps.

The following information is supplied by manufacturers of the equipment described and claims made below by these manufacturers are passed along for what they are worth. Presentation of such notice in this department is not to be taken as endorsement of the claims or of the equipment.

Powder Filler

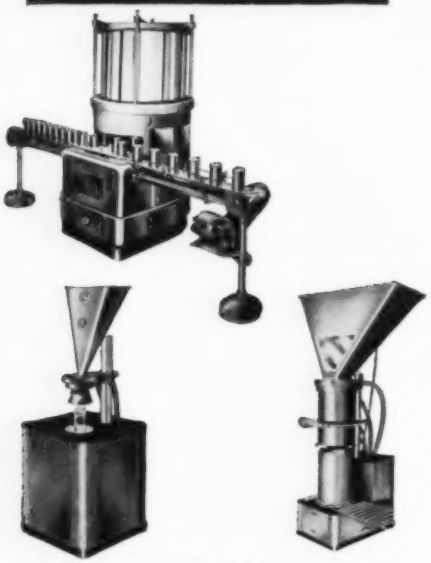
A powder packaging machine employing a radically different patented method of measuring and agitating the product, operates well on all kinds of powders and granules, regardless of dryness or moisture content. The measuring device is of the leveled cup type and is very accurate. Efficient operation of the machine is not effected by atmospheric conditions of dryness or high humidity. The product cannot clog.

A multiple paddled rotor revolving in a cast aluminum housing is equipped with agitators to keep the product free flowing. This rotor also embodies a device for closing off the flow while the measuring cup is discharging its load. This cup is of the steam shovel type, opening to discharge the load. This prevents moist powders from sticking in the cup and assures each measured amount to be the same.

All surfaces coming in contact with the product are aluminum, stainless steel or hard chromeplated. The body of the machine is dark green enameled. Because of the totally enclosed design, no powder can escape during the packaging process, except from the discharge spout.

This model weighs 98 pounds, requires 14 x 18 inches of floor space, stands 60 inches high, convenient to move about the building where needed, speeds of 15

CLEAR THE AIR



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Dustless POWDER FILLERS

Cut Product Wastage
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Cut Cleaning Costs

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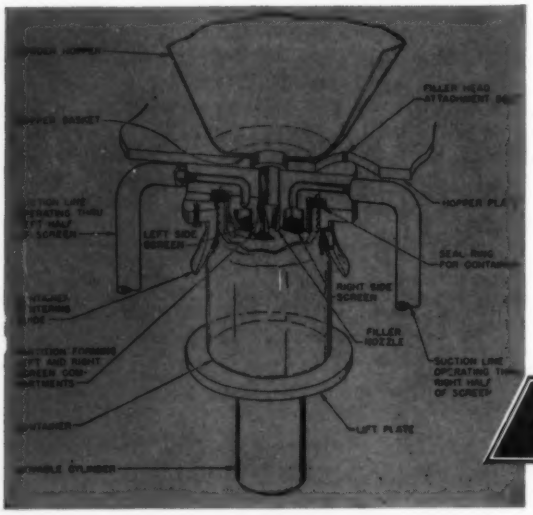
EXPOSITION OF CHEMICAL INDUSTRIES
Grand Central Palace, N. Y. Nov. 26-Dec. 1



Pneumatic, a leading manufacturer in the packaging field since 1895, now offers a complete line of powder filling equipment — machines operating on a new principle of vacuum feeding, instead of pressure to pack the powder into its container.

Here's how Vacuflow works: Air is removed from the container to create a vacuum, which draws a measured quantity of powder from the hopper. Uniform fill is assured by regulating the powder's density with a predetermined degree of vacuum. This unique method eliminates dust because it simply does not involve air currents that *cause* dust.

Units are available to handle every powder filling requirement. This includes semi-automatic models for filling containers ranging from a tiny powder box up to 200 pound drums and multiple head rotary models for automatic handling of 5 pound sizes or less, at speeds of 45 to 300 per minute. Pneumatic invites your inquiry.

PNEUMATIC SCALE CORP., LTD., 70 Newport Avenue, Quincy 71, Massachusetts. Branch Offices in New York; Chicago; San Francisco; Los Angeles; Seattle.

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LOWER COST PER CONTAINER

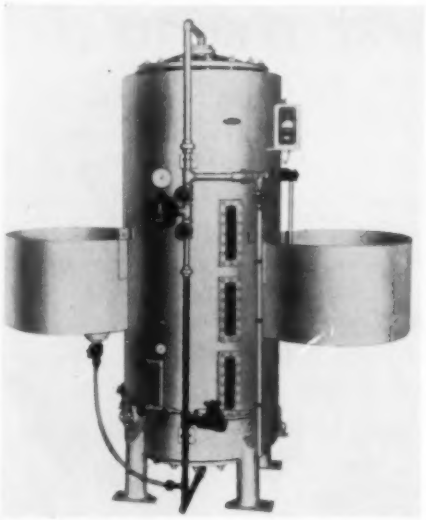
PACKAGING AND BOTTLING MACHINERY

to 50 fillings per minute are available and the slow speed of the few moving parts assures long life and minimum replacements. Made by Plageman Enterprises Willoughby, Ohio.

Penfield Announces New Mono-Bed Demineralizer

The Penfield Manufacturing Company of Meriden, Connecticut, who during the past 10 years have manufactured more demineralizing units than any other manufacturer, have announced the availability of a new Mono-Bed Demineralizing Unit.

As shown in the picture below, the new Penfield Mono-Bed Demineralizer operates upon the most efficient and effective deionizing technique available to industry. Cation and exceptionally strong base anion exchangers are intimately mixed in a single unit tank, thus providing in one container the equivalent of a large number of "multiple bed systems." The raw water passes through this Mono-Bed column only once, yet comes out with a mineral content of virtually zero (resistances have been reported as high as 20,000,000 ohms per centimeter).



Penfield Mono-Bed Demineralizers are ideal for a large variety of industrial operations, including power plants, mirror plating, electronic and anode tubes, photographic finishing, and wherever exceptionally high purity, completely mineral-free water is required. Models are available in flow rates ranging from a few gallons per hour to 5,000 g.p.h. and up.

Complete catalog information can be had by writing to Mr. Edward H. Clohessy, General Manager, Penfield Manufacturing Company, Inc., 19 High School Avenue, Meriden, Connecticut.

Wilkie Deflector

A new Deflector that makes truck and car loading more nearly automatic has been developed by the maker of Wilkie Portable Gravity Conveyors. The only labor required is for stacking cartons as they are automatically delivered to a stacking point.

The Deflector, attached to the platform end of the

telescoping portable conveyor, automatically guides cartons off the permanent belt conveyor and shunts them, at 90°, onto the portable telescopic conveyor which extends into the truck, trailer or box car. Both right hand and left hand deflectors are supplied to take care of removal to either side.

Advantages claimed for complete Wilkie car and truck loading systems are: fully automatic operation to the stacking point, no height adjustments needed when conveyors are shortened or extended, one man can set up the system in a few minutes, system can be used on either side of a conveyor belt moving in either direction, equipment is readily mobile and can be used anywhere on the loading platform, loading in minimum time at minimum labor cost. Manufactured by the Wilkie Company, 5520 Arch St., Philadelphia 39, Pa. Catalog on request.

Tractor

A new motorized tractor that automatically engages various types of industrial trailers and will permit operation in narrow aisles and accurate spotting of loaded trailers has been developed by the Philadelphia Division, Yale & Towne Manufacturing Company. In actual operation on a large trailer it is possible with this device to engage the end of a caster type trailer and make a right angle turn with the center of the turn being the fixed axle of the trailer. This gives the shortest steering radius possible with a given trailer.

Called the "Grip-Tow", the new device was invented by George Quayle, Yale's Chief Engineer for hand and motorized hand lift trucks. In operation, the motorized tractor is driven to the end of the trailer and a push button is pressed engaging a hook on the tractor with the lower side of the trailer frame. The hook then pulls the trailer into intimate contact with the tractor. Next, a pair of secondary hooks reach out and grab the top part of the trailer frame firmly engaging tractor and trailer.

Finally, the trailing wheels of the tractor lift off the floor so that the weight of the rear end of the tractor is supported on the trailer and both form an integral unit. This is all accomplished in a few seconds providing a powered trailer with high maneuverability.

The "Grip-Tow" tractor will operate successfully

EXACT WEIGHT Shadograph in a small animal weighing operation for laboratory experimental purposes.

Precision Equipment for Small Animal Weighing . . .

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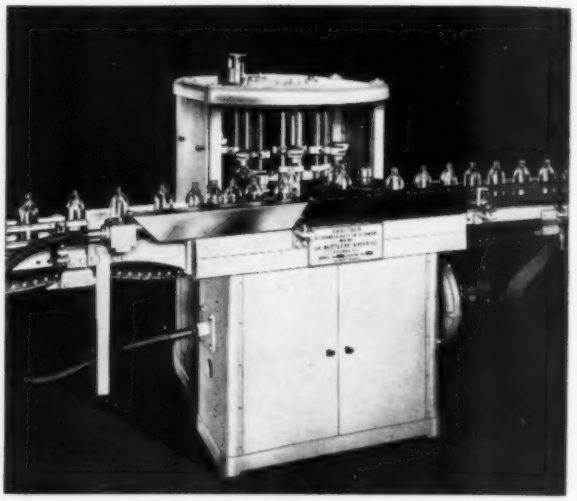

Especially recommended for air cleaning containers of products that require spray valves that must be protected against valve clogging.

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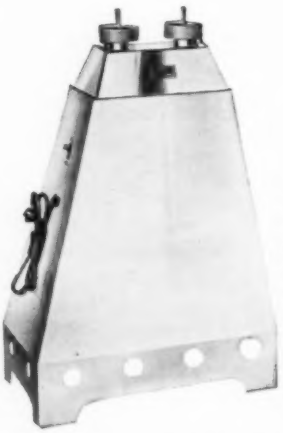
Completely automatic. Now available with advanced type feed and new, exclusive automatic control. Provides double cleaning time at normal operating speeds—in half the usual machine space. Produces most positive action and economical use of compressed air. Handles all size containers from sprinkler-top to wide mouth finishes. Quick machine adjustments for different size containers. Write for the new Sanitair Bulletin.



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Semi-Automatic

A bottle cleaner for new glass. As a two-tube machine it handles two containers at a time. The instant the inverted container contacts the machine, a blast of compressed air efficiently removes foreign matter from the container. Requires only ordinary skill for efficient operation. Furnished with air filter for connection to customer's air lines. Floor space required only 27 x 14 inches. Write for Model E-Z Bulletin.

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with almost any caster type trailer which has some projection of edge which the gripping mechanism can engage. For further information, contact the Philadelphia Division, Yale & Towne Manufacturing Company, 11,000 Roosevelt Boulevard, Philadelphia 15.

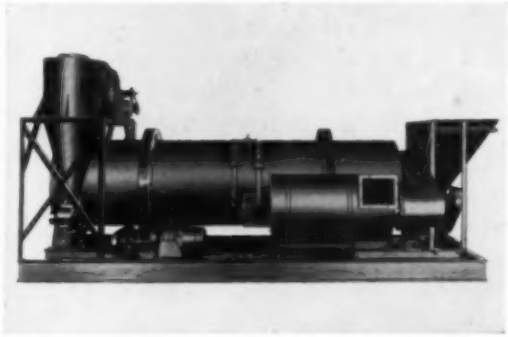
Patterson Packaged Drying Unit

The Patterson Foundry & Machine Company of East Liverpool, Ohio, has recently placed on the market a packaged drying unit for the drying of chemical products, raw materials, synthetic compounds, food products, and for use in many processes where the drying of expensive or delicate products is necessary.

The unit consists of a rotary dryer with drive, screw feeder, air heater, fan and dust collector integrally mounted on a steel frame. This packaged construction results in a sturdily built, compact dryer assembly, economical to install and maintain.

Materials to be dried are fed continuously by means of a special feeder directly to the sanitary interior of the dryer, and an uncontaminated, uniformly dried product is discharged continuously.

To maintain optimum drying conditions the unit is equipped with a drive which permits variation of the feed rate over a range of 3 to 1, enabling the operator



to meet any variation in drying characteristics of the material.

Pre-heated air is provided by an oil or gas fired air heater; steam also may be used as a source of heat. The dryer is equipped with automatic thermostatic control. There is no recycle of the dryer air in this Patterson system, fresh air being drawn in for the full make-up. Gases of combustion pass in direct contact with the product without any deleterious effects.

Patterson builds this packaged unit in a number of standard sizes, 2′, 2′ 6″, and 3′ diameters, and in lengths from 10′ to 24′. It is available in plain and stainless steel, as well as with pure white acid-resistant and abrasion-resistant Porox linings.

Paper Shredder

Designed to provide a fresh, clean, rapid source of resilient packing material, these compact, portable MARVEL PAPER SHREDDERS offer many advantages to shipping departments: The freshly cut paper possesses up to 3 times more volume than baled paper, saves weight and postage, and offers better protection to product. Cleanliness also is more easily controlled.

The machines produce at high speed, filling normal shipping room requirements in a few moments of operation. Papers are shredded either in ¼″ or ⅜″ widths, depending upon machine size and model. Up to 35 thicknesses of newspaper are simultaneously cut by the largest machine. Cutters on all models are completely guarded to protect operator safety, papers being fed through a tunnel from the rear. Feeding is continuous.

Four MARVEL machine sizes are built with throat openings of 10″, 18″, 20″, and 25″. The larger models are all power driven and readily shred newspapers, magazines, tickets, blueprints, office papers, correspondence, etc. The small machine, a hand-driven model, is designed to destroy confidential material only. Descriptive circulars, prices, etc. are available from the manufacturer:

Van Dyke Industries, 3625 Cahuenga Blvd., Los Angeles 28, California.

Metering Pumps

An illustrated, 24-page, 2-color bulletin on controlled volume pumping and Milton Roy Controlled Volume Pumps has recently been published by Milton Roy Company, 1300 East Mermaid Lane, Philadelphia 18.

Bulletin No. 151 will be of interest to industrial plants whose operations call for pumping a controlled volume of liquid in amounts as much as 50 gallons per *minute* or as little as 3 milliliters per *hour*.

The bulletin gives complete details on controlled volume pumping, describes the features that make Milton Roy Controlled Volume Pumps perform flawlessly on services where no other pump has filled the need, and includes data required for selecting Milton Roy Pumps for specific applications. Uses are given for these pumps in the chemical, textile, petroleum, food and beverage, water treatment, pulp and paper, paint, pharmaceutical, and brewing industries and in instrumentation, pilot plants, and laboratories. Four pages of color charts show in dramatic "stop-go-caution" style the relative corrosion resistance of materials of construction to over 170 chemicals. These valuable reference charts summarize industry-wide data.

Free copies of Milton Roy Bulletin No. 151 may be obtained by writing Milton Roy Company.

(*Continued on page 694*)

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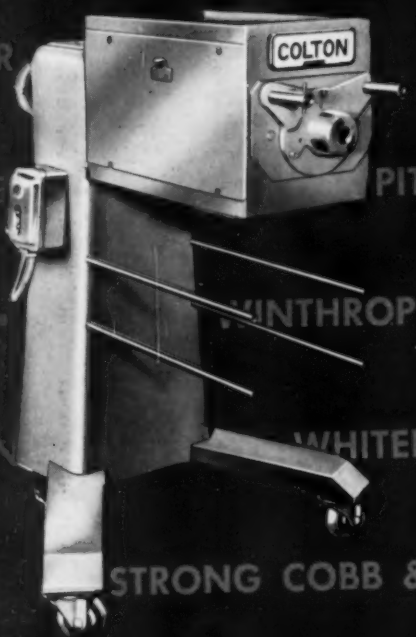

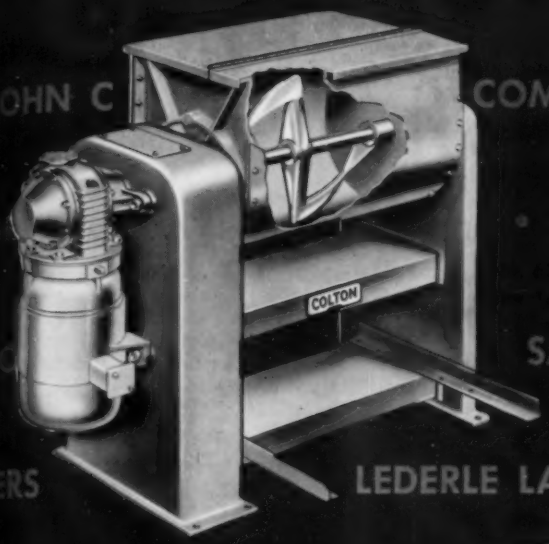

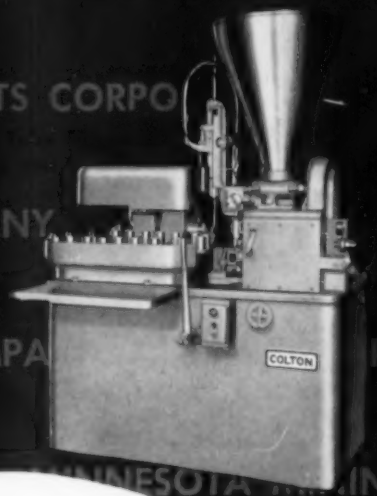

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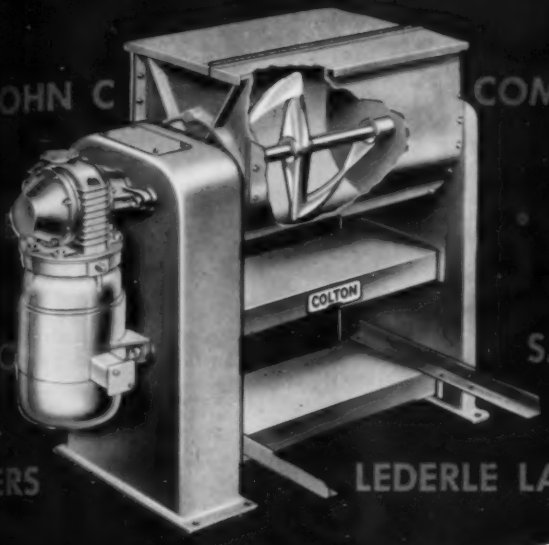

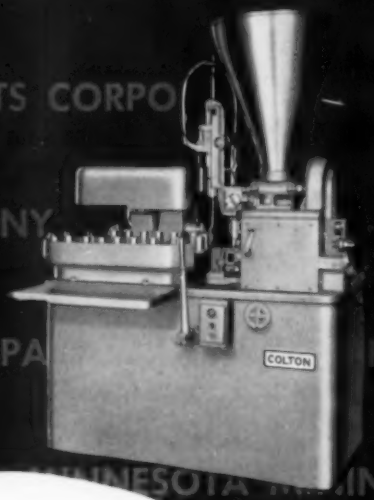

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Animal Health

Foot-Rot in Cattle

Foot-rot, says E. A. Woelffer (*Vet. Med.* 46:265, 1951) generally develops in animals that are kept on filthy surroundings or wet, contaminated yards. Draining and filling in wet spots or cleaning up loafing sheds and yards will help to lessen the incidence of infection. Slaked lime placed in a shallow box so that cattle walk through it appears to aid in controlling the spread of the disease. Lime-sulfur or copper sulfate solutions used in a similar manner have proved effective also.

In discussing the treatment of foot-rot, he notes that intravenous medication with sulfonamides largely was replaced the more laborious task of picking up the foot and administering local treatment. Routine intravenous therapy without careful examination of the affected foot, debridement and cleansing, however, is not considered good practice. Often a little trimming of the claws and local applications of an astringent antiseptic bring about healing more rapidly and effectively than other forms of treatment. There are a number of satisfactory preparations for local application for foot-rot but the solution successfully used by Woelffer consists of:

Formalin	**50 cc.**
Liquefied Phenol	**60 cc.**
Water, to make	**500 cc.**

When the infection is destroyed, the application of a suitable healing oil is indicated. If the affected area is exposed to filth, bandaging is advised. A very satisfactory and inexpensive bandage is made from an ordinary burlap sack. This bandage will wear off, but if properly applied will not come off.

Organic Arsenical for Growth

According to a report in *Chemical Week* for October 6, 1951, L. E. Carpenter of the Hormel Research Institute has found that an organic arsenical may stimulate animal growth. This substance, 3-nitro-4-hydroxy-phenylarsonic acid, has been shown to help hogs, chickens and turkeys attain up to 48.8 per cent more growth than animals on a control ration. Recommended level for the arsenical in feed is 0.00675 per cent, which means that a pound of the substance will treat about eight tons of feed. At this level no toxicity has been observed, and if the animals are taken off the arsenic-containing diet for a week just before marketing, the arsenic content of the body returns almost to normal. In addition to its growth-stimulating properties, the compound can also be used to treat bloody dysentery in swine. This therapeutic property of the compound is a discovery of the past few months, while research on its stimulating properties has been in progress for more than two years.

Thyroprotein and Milk Production

Research at the West Virginia University Agricultural Experiment Station shows that it is possible to increase milk production of many cows for varying periods of time by feeding thyroprotein (protamone). Thyroprotein is now being added to some commercial feed. By feeding thyroprotein, the cow's heart rate and rate of breathing is increased. As much as 25 per cent more feed is needed to maintain the body weight and milk production of the cow. When this extra feed is not fed, the cows usually show a period of stimulated milk production, followed by a rapid decline in body weight and milk production.

Breeders should realize that the use of thyroprotein may complicate their program of selection and breeding as they cannot expect cows that are fed thyroprotein to transmit to their offspring at the level which their production might indicate. Breed associations prohibit the use of thyroprotein for cows under Advanced Registry or Herd Improvement Registry tests.

West Virginia Station trials show that cows fed thyroprotein will drop off in milk flow very rapidly when its feeding is discontinued and that during the entire lactation period there was little to be gained in milk production by feeding it. Too little is known about the effects on the cow of the increased pulse rate and respiratory rate on the length of the animals' life, her fertility, and general health. Station results seem to indicate that such feeding may be a great drain on the cow's constitution. Until further experimental work is done to determine more of the results of feeding thyroprotein to dairy cattle, one should consider whether he would be ahead feeding this material or by feeding the extra feed that could be purchased with the price paid for the thyroprotein.

Intravenous Procaine for Pruritus in Dogs

The value of intravenously administered procaine hydrochloride for alleviating pruritus in dogs is indicated by D. Pickett (*Vet. Med.* 46:271, 1951). He points out that itching is induced in dogs by various parasites, fungi, allergies, and systemic diseases. Manifestations of this vary from occasional scratching and biting at feet to skin excoriation. In such instances, the animal is unable to rest and on occasion the distress is severe enough to cause hysteria and convulsions.

In the two years since he first tried procaine intravenously, it has proved so satisfactory that it is now regularly included in routine therapy where it is desired to relieve itching. The best results have been obtained by intravenous injection via Murphy drip, allowing one hour for administration. Dose recommended is 4 cc. of a 0.1 per cent solution of procaine hydrochloride per pound of body weight. For the double advantage of safety to the patient and convenience to the doctor, administration is preceded by a very light anesthesia produced with pentobarbital sodium. The barbiturate prevents dangerous central nervous reactions and also makes possible the administration of procaine without constant supervision by an attendant.

Pickett has administered procaine to well over 500 patients. The results of these treatments have varied in individuals. Although occasionally the relief from scratching may last just a few hours, the majority of the patients are relieved for periods from five to as long as 17 or 18 days. The relief from itching is an aid not only in providing

comfort to the patients but it also prevents the additional injury which is caused by continuous scratching. The inflammatory appearance of the skin will occasionally subside entirely within 12 to 48 hours following the administration, and recovery is thus hastened. The treatment has been found to be particularly advantageous in the fall when so many typically allergic dermatitis cases are presented.

Milk "Replacement"

In a note in *Veterinary Medicine* (46:198, 1951), R. R. Dykstra points out that instead of feeding calves high-priced milk, dairymen are beginning to supplant the milk with so-called "replacements." A replacement formula developed at Pennsylvania State College has the following composition:

Dried whey	**50 lb.**
Distillers' dried solubles	**10 lb.**
Oat flour	**5 lb.**
Soluble blood flour	**10 lb.**
Dextrose	**7 lb.**
Dicalcium phosphate	**2 lb.**
Vitamin A and D feed (500 U. S. P. units D_2 and 4,000 I. U. of A per Gm.)	**½ lb.**
Mineral mix (calcium 32 per cent, magnesium 2. 6 per cent, manganese 1 per cent, iron 1.175 per cent, cobalt 0.002 per cent, and copper 0.125 per cent)	**½ lb.**

Bovine Venereal Trichomoniasis

Bovine venereal trichomoniasis is caused by a flagellated protozoon, *Trichomonas foetus*. The disease is characterized by breeding difficulties, temporary sterility, early abortions and antepartum pyometra, or accumulation of pus in the uterus. In discussing the treatment of this condition, G. Dikmans (*N. Amer. Vet.* 32:679, 1951) states that in view of the fact that infection in females is temporary and self-limited, no medicinal treatment is necessary. However, in bulls infection with *T. foetus* is usually permanent unless the animals are treated. Although many agents have been used to treat the males, at present only two preparations have shown reasonable effectiveness. Both failures and successes, however, have been experienced with these treatments. One consists of the intravenous administration of sodium iodide. Suggested treatment with this drug is as follows: five doses given intravenously at intervals of 48 hours, each dose consisting of 5 Gm. of sodium iodide per 100 pounds of body weight, dissolved in 500 cc. of sterile, distilled water.

The second treatment consists of the topical application of a German proprietary compound called "Bovoflavinsalbe." According to the label, this is composed of 0.5 per cent 3, 6-Diamino-10-methyl-acridiniumchlorid (neutral trypaflavine) and 0.05 per cent Bis-2-methyl-4-amino-chinolyl-6-carbamid-hydrochlorid (surfen) in a fat-free, washable, ointment base. This ointment is applied, under epidural anesthesia, to the glans and preputial membranes. After the ointment has been applied, the anterior urethra is douched with a 0.1 per cent trypaflavine solution.

Streptomycin for Sinusitis in Turkeys

Streptomycin can be used effectively in treating infectious sinusitis in turkeys if the treatment is applied in the correct amount and at the right time. This was learned in recent tests on 750 birds by workers of the West Virginia University Agricultural Experiment Station. Station workers picked the birds at random and injected either 100, 150, or 200 milligrams of streptomycin into each affected sinus without draining. The streptomycin was prepared by dissolving 1 Gm. in 10 cc. of sterile, distilled water. The dose was injected into the affected sinus with use of a 10 cc. glass syringe with a 20-gauge, 1-inch hypodermic needle.

The investigators concluded that the 100 milligrams dose of streptomycin should be used. In some of the birds, two treatments were required. Treatment at three-week intervals, therefore, allowed time for recovery of any affected birds. Following treatments, there was no trend toward return of the disease. It was found that early treatment, before the swelling becomes too large, is desirable. Death loss in the 750-bird flock amounted to one or two birds per day before treatments—a large percentage were culls. Following treatment, however, only five birds were lost, and the number of culls was reduced materially.

Sulfathiazole for Bee Disease

Experience in Scotland during several years, said A. S. C. Deans (through *Vet. Rec.* 63:621, 1951), has shown that sulfathiazole is effective in the cure and prevention of foul brood disease. Following American methods, it was given in sugar syrup and fed to the bees, and there had been great success with it. Last year, however, the extremely bad weather had caused a scarcity of sugar, and the idea had occurred to Deans to pulverize the drug and dust it on to the bees and the brood in the hive.

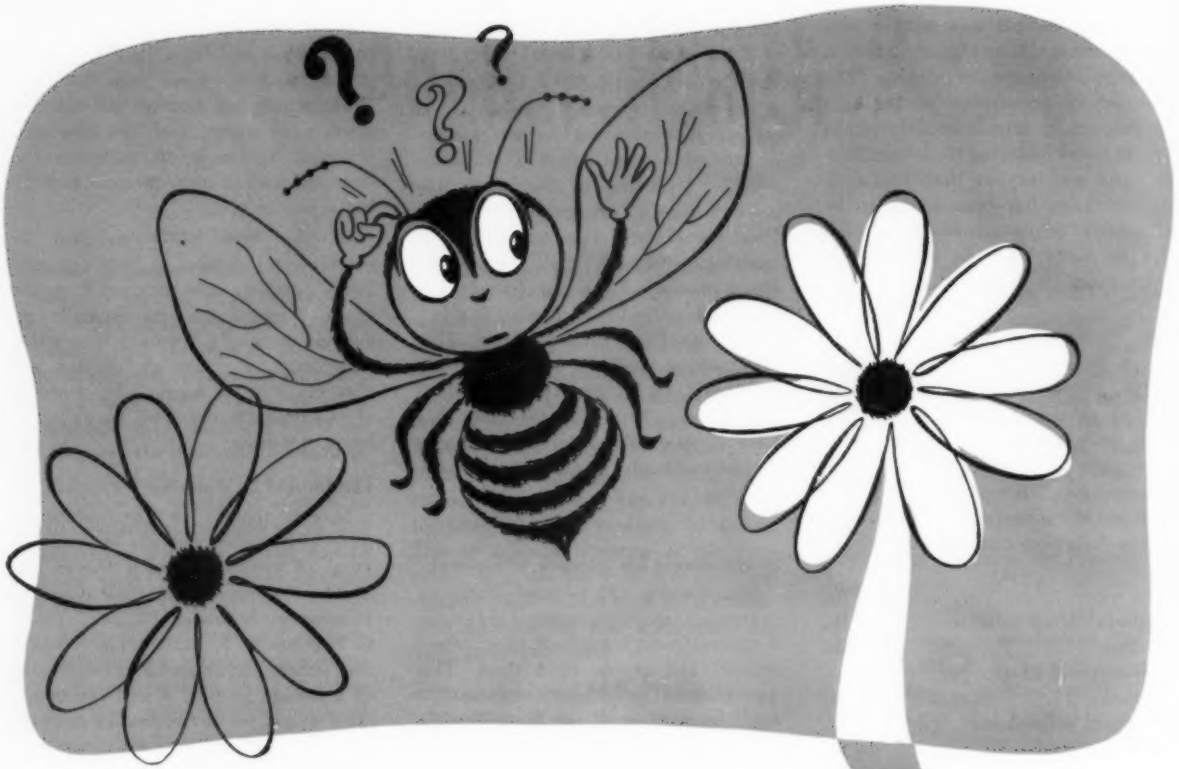
In the 1950 trials, covering 25 colonies, no combs, no matter how badly infected, were removed from the hives. Treated colonies normally regained "morale" a few days after treatment and all trace of disease was eliminated in six weeks. An overdose of sulfathiazole does not in any way harm the bees.

Terramycin in Veterinary Practice

Several reports in the veterinary medical literature indicate the growing value of terramycin as a therapeutic agent. For example, in their report in *Veterinary Medicine* (46:219, 1951), C. W. Cromley and J. M. Hagely stated that terramycin appeared to be effective at a dosage level of 1 mg. per pound body weight per day in cases of shipping fever and pneumonia, when administered intravenously to cattle. In cases of acute staphylococcic mastitis, this antibiotic has been effective in controlling the toxemia, but it takes a few days of intramammary injections to clear the quarter entirely of infection. Cases of canine distemper and pneumonia and other infections of the upper respiratory tract in dogs responded quite well to terramycin therapy. However, in so-called "baby pig disease" terramycin was not effective. Though four cases of navel septicemia did not respond to terramycin therapy, they believe that this antibiotic should be thoroughly investigated in this condition of calves.

In a paper published in the *Journal of the American Veterinary Medical Society* (119:302, 1951) H. H. Lutz indicated the value of terramycin in small animal practices. Following the use of this antibiotic in six varied cases, he concluded that in view of its broad antibacterial range, terramycin would certainly appear to be the antibiotic of choice, since it has been found effective against more of the most common pathogens encountered in veterinary medicine.

In the same issue of the *Journal*, (p. 299), J. Antelyes similarly stated that terramycin is a safe effective antibiotic for use in canine practice. Four of the 14 cases treated by him responded to terramycin even though the use of other antibiotics has failed.



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Readers' Questions

LIGHT RESISTANT BOTTLES: Certain substances are affected by light and should be packaged in light resistant containers. Could you refer me to some sources of information on the exact effect of light on these substances and the wave lengths of the light which causes these effects? Baltimore.

I think you will find all the information you want, or at least a very good lead, in the U.S.P. XIV. Page four of the Pharmacopoeia gives the standards for all the basic requirements of light resistant containers while, starting on page 694, it gives considerable technical data on determining the light resistance of containers and other pertinent information.

ANTI-SMEAR FOR LIPSTICKS: Can you give me information on the preparation of liquids which are used to keep lipsticks from smearing? Reno.

Products of this sort generally consist of some cellulose derivative in a suitable solvent, which generally requires alcohol or something of that sort for its removal. It is my impression that most of these products are covered by patent such as that issued to M. Klimist, (U. S. Patent No. 2,230,063). A typical colored preparation from this patent calls for the use of:

Ethyl cellulose	3.1 per cent
Ethyl alcohol	68.4 " "
Petroleum ether	20.0 " "
Hydrogenated methyl abietate	7.5 " "
Rhodamine	1.0 " "

EMULSION TYPE HAIR DRESSING One of our customers is looking for an emulsion type hair dressing. We would greatly appreciate it if you would let us have a formula for such a product, which we can pass on to him. Middletown.

I think the following will meet the requirements of your customer. It is an emulsion type liquid hair dressing of the cream oil type now so widely popular:

Petrolatum	7.5 per cent
Mineral oil	37.5 " "
Lanolin, anhydrous	3.0 " "
Sorbitan sesquioleate	3.0 " "
Beeswax, white	2.0 " "
Borax	0.5 " "
Water, to make	100.0 " "
Perfume	sufficient

Mix the first five ingredients and heat to 75°C. Dissolve the borax in the water and bring to the same temperature. Add the borax solution to the previous mixture slowly with moderate but thorough agitation. Perfume at 45°C. and agitate until cold.

CONDITIONED SHAMPOO: We are very interested in obtaining a formula for a cream shampoo, possibly with lanolin or some similar material as a conditioner or anti-defatting agent. Please take into consideration the fact that because of import restrictions we are not able to obtain some of the newer types of synthetic materials. Tel-Aviv.

I have been trying to take into consideration the fact that certain materials are difficult to obtain. I think that the following formula based on synthetics and containing a number of super-fatting or conditioning agents may be along the lines you desire:

Sulfated cetyl-stearyl alcohol (Lanette wax SX)	15.0
Sulfated lauryl alcohol	55.0
Cholesterol	0.3
Lecithin	0.3
Vegetable oil	3.0
Preservative	0.2
Water, to make	100.0

OINTMENT BASES WITH CETYL ALCOHOL: We would greatly appreciate receiving an ointment formula or formulas using cetyl alcohol which would be compatible with various medicaments. New York City.

A highly compatible emulsion base containing cetyl alcohol may consist of:

Sodium benzoate	0.1 parts
Spermaceti	10.0 "
Sodium lauryl sulfate	1.0 "
Stearyl alcohol	10.0 "
Cetyl alcohol	3.0 "
Glycerine	10.0 "
Water	65.0 "

Another formula which contains cetyl alcohol, as given by Goodman, calls for the use of:

Cetyl alcohol	16 per cent
Beeswax	2 " "
Propylene glycol	8 " "
Sodium lauryl sulfate	2 " "
Water, to make	100 " "

Melt the cetyl alcohol over a water bath, mix with other melted fat-like solids; add to warmed water at same temperature and mix by mechanical agitation until cream forms.

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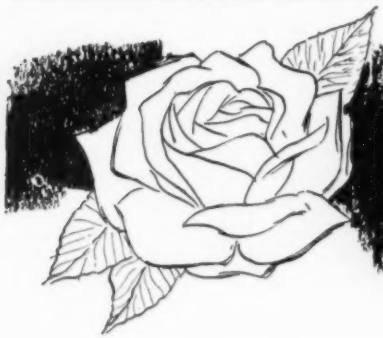

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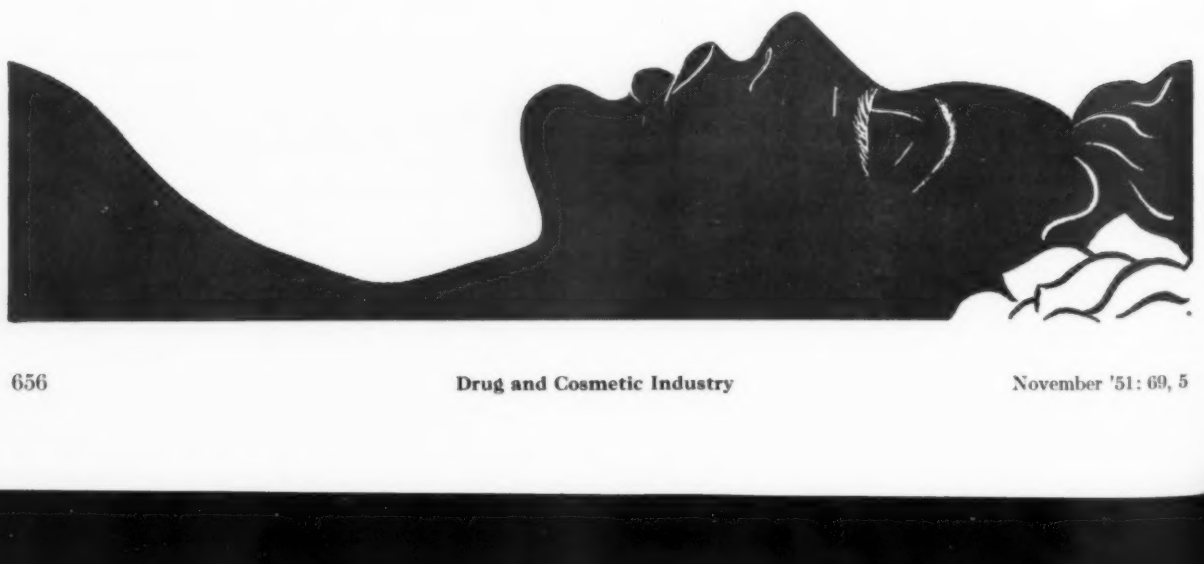


Patent Thoughts and Trends

*by Thomas Cifelli, Jr.**
PATENT ATTORNEY

A Suggestion for a More Active Technical Participation in Patent Practice

By and large all questions relating to patent practice have been left in the hands of the patent bar and the Patent Office, the latter operatng under legislative authority. The patent bar naturally has done the best it can to advance the interests of the inventors. There are those who feel that while patent attorneys have done a pretty good job on the whole, it might be a good idea for other groups to aid the patent bar in its work. One such person is W. L. Cheesman, of the Northern Regional Research Laboratory, Peoria, Illinois, a former U. S. Patent Examiner. In a talk given before a division of the American Chemical Society at its meeting held in Boston in April, 1951, Mr. Cheesman made the specific suggestion that the American Chemical Society should give some attention to influencing the trend of patent practice. His paper was recently published in *Chemical and Engineering News*, Vol. 29 (page 4463). The problem which Mr. Cheesman deals with and his suggestion are believed to be of sufficient interest to warrant rather detailed attention here.

By way of definition, to set the stage, Mr. Cheesman makes a distinction between patent practice on the one hand and the patent system on the other. Patent practice he defines as the unwritten rules followed by the Patent Office and the patent bar in the prosecution of patent applications. The patent system is reflected in the federal patent statutes.

In order to meet changing conditions patent practice has obviously been forced to change from time to time. While Mr. Cheesman doesn't say so in so many words, he makes the point that the changes sponsored by the Patent Office itself have been adopted with greater frequency than the changes sponsored by the patent bar. Consequently, with the thought of helping the patent bar, Mr. Cheesman makes a suggestion for organizations such as the American Chemical Society to participate in trying to effect desirable changes in patent practice. He points out, as justificaton for action by groups such as the A.C.S., that inventions and patents are important to the scientist, since they influence his own professional welfare directly, provide some measure of his practical achievement and indirectly influence his economic welfare, inasmuch as they figure in the economic welfare of his employer.

*Gaylor, Cifelli & Jurick, Newark, N. J.

Principles Governing Action

Mr. Cheesman sets up a set of principles to act as guides for the A.C.S. and other interested groups before they propose any change in patent practice. His principles follow, the word "I" referring to Mr. Cheesman himself:

(1) The change should be free from constitutional or statutory obstacles. It should not run counterwise to an engrained rule of law or a long-established rule of practice. I do not mean here that no change can be made in these particular fields. I do mean, however, that any change in such fields would be a serious undertaking requiring a scope of activity not appropriate for a group such as this.

(2) The proposed change should represent a net benefit to the patent system as a whole. The patent system should not be made to suffer by derogation of long established principles merely for the immediate or subjective benefit of a limited group of inventors.

(3) The change should provide a substantial relief, and should be the best and clearest method for accomplishing that relief. There have been examples in the past of a needed relief being accomplished by indirection. This is not good, for it frequently creates a maze of technical and procedural requirements that submerge the real purpose of patent prosecution.

(4) There should not be a substantial segment of adverse opinion within the ranks of the patent bar. The reason for this principle, I think, is obvious. The Patent Office would certainly be reluctant to consider a proposed change made by one segment of the inventing public if that change were vigorously opposed by another segment.

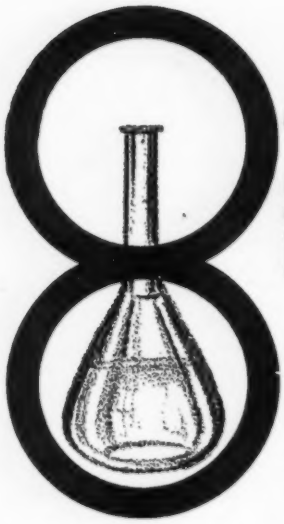
How Patent Practice Can Be Influenced

After the desirability for a change in practice has been determined in accordance with the foregoing principles, the next question is how does one go about having the desired change effected. Mr. Cheesman feels that the most effective way is to bring the problem directly to the attention of the Commissioner of Patents. It is said that the Commissioner will be found to be quite cooperative in granting relief to inventors from unnecessary burdens imposed by current patent practice but may require considerable persuasion in some cases. A note of caution might be injected here. Obviously, the Commissioner of Patents has considerable duties and it certainly would not aid in his conduct of his official duties if he had to talk to every Tom, Dick and Harry who had an idea for improving patent practice.

Another way of effecting a change, according to Mr. Cheesman, is to wage a campaign of concerted action through patent bar associations or associations of inventors where the suggested change may be given a preliminary examination before being presented to the Commissioner of Patents. Also, a campaign of information could be conducted in publications likely to be studied by the examining corps of the Patent Office and by the patent bar, thereby preparing the way. Also, industry and the patent bar could be circularized for the purpose of provoking concerted action. Another way suggested by Mr. Cheesman is that of test cases involving the change for the purpose of gaining favorable rulings by the Patent Office Board of Appeals or by the courts.

Road To Take

Recognizing that different problems should be handled differently, Mr.



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Cheesman suggests that the road taken may be dictated by the following considerations:

(1) If the desired change is one which will benefit the Patent Office by lessening burdens or cost, then that is the place to take the problem. A meeting of minds may be arrived at simply by an intelligent approach to the Commissioner of Patents. This direct approach may be supplemented or modified by previously seeking out members of the examining corps likely to be affected by the change, for the purpose of probing Patent Office opinion. Publications may be presented with the hope of provoking action, or at least thought, on the part of the examining corps, the supervisory examiners, or perhaps even on the part of the commissioner and his assistants. The purpose of these actions, would, of course, merely be to apprise the Patent Office of a suggestion affecting patent practice to which all concerned are likely to be receptive.

(2) The commissioner may not welcome a suggested change. He must be mindful of added burdens to his examining corps, added cost, and unnecessary flux in patent practice. If the suggested change involves any of these aspects, perhaps the better approach is through concerted action. The commissioner may not be persuaded unless he feels that inventors and attorneys are substantially unanimous in desiring it and that it would be of general benefit to the patent system. Efforts may be made to encourage industry and the patent bar to express group approvals.

(3) If group expressions of approval are definite and clear and the case is presented in its most favorable light, the commissioner may be persuaded even in cases where the Patent Office itself would receive no net benefit. In these cases, I should certainly recommend careful study of the method of presentation in order that the most favorable light is shed upon a definite benefit to the patent system.

General Comments

I believe there is considerable merit to Mr. Cheesman's general proposition, namely, that a scientific organization such as the American Chemical Society should concern itself directly with attempting to effect changes in patent practice. The patent bar is not alone in its interest in the patent system and it does appear to be rather unusual that the patent bar is practically the sole group which thus far has had any active participation in trying to get changes in the patent practice and statutes. In other fields all branches of the industry concerned are usually represented. Thus, one reads in the daily newspapers that the witnesses appearing before the congressional committee considering the status of baseball include not only the legal counsel for the baseball interests, but also active players, both major and minor, owners, managers, etc. While it may be quite complimentary to the patent bar to have full responsibility for espousing the cause of inventors, it can use some help.

Of course, I do not understand Mr. Cheesman to suggest that the patent bar should in any way limit any of its present activities. His suggestion, as I understand it, is that *in addition* to the efforts of the patent bar, technical groups such as the American Chemical Society should concern themselves actively with the problem. The technical people should not pass along their obligation to their patent representatives, as has happened all too frequently in the past. Instead, organizations such as the A.C.S. should have some of their high ranking *technical* personnel make the actual contacts, concerning themselves with the *technical* phases involved in patent practice and leaving the purely legal matters to the patent bar. Perhaps a cooperative or joint action would be the practical and feasible answer to the matter, it being understood that the function of the technical representatives would not be merely to parrot the patent practitioner but to bring home to the Patent Office the position of inventors on the practical aspects of the problem.

It will be interesting to watch whether the American Chemical Society or other similar organizations will do anything about the Cheesman proposal. If this proves to be just one more proposal about which nothing is done, technical people will only have themselves to blame if the patent bar cannot by itself convince the Patent Office that certain practices are not in the public interest.

Solid Essential Oil-Sorbitol Concentrates

W. C. Griffin recently obtained a patent covering solid flavoring and perfuming compositions, the patent being U. S. 2,566,410 and being assigned to the Atlas Powder Company.

In order to minimize the loss of essential oils by volatilization or oxidation, Griffin incorporates essential oils into substantially dry molten sorbitol and solidifies the resulting dispersion. The resulting solid compositions have use in different fields of application. Since the sorbitol is edible and completely water soluble, food flavorings dispersed therein can be added to food products such as gelatin desserts, pudding mixes, cake mixes, etc. In the cosmetic field the resulting solid perfume concentrates can be used as bath perfumes and perfumed hair rinses. If essential oils of medicinal value are employed in the compositions, lozenges, throat tablets and the like can be prepared. The solid concentrates of the Griffin invention contain usually from about 5-20 per cent of the dispersed essential oil. Levels above 20 per cent can be utilized, especially if emulsification is assisted by the use of certain surface active agents, such as the polyoxyethylene ethers of long chain fatty acid monoesters of the hexitans.

Among the essential oils from which solid concentrates can be prepared are: oil of peppermint, oil of wintergreen, oil of clove, lemon oil, orange oil, lime oil, oil of cassia, eucalyptol, pine needle oil and terpineol.

The solid concentrates can be solidified into any suitable form. For example, they may be cast into rods, tablets, or pellets; or may be chilled in a thin film on a cold roll and scraped off as flakes or ribbons; or may be sprayed into a cold chamber to yield small granules of any desired size. The use for which the concentrate is intended will determine which of the forms should be selected.

The claims embrace rather broad protection, claim 1 reading as follows:

A composition comprising a solid sol wherein the continuous phase consists essentially of sorbitol and the disperse phase is an essential oil.

RECENT PATENTS

2,568,778—**Sterling Drug—Tertiary-aminoalkyl - alpha - aryl - alpha-(4-Quinolyl) acetates and Amides.**

2,568,809—**Armour & Co.—Tetrahalomethylhexestrols.**

2,568,894—**General Aniline—4-Benzoylresorcinol as an ultraviolet Absorbent.**

2,568,966—**Ciba Limited — 4-p-Chlorobenzoylamino - Anthraquinonebenzacridone.**

2,569,415 — **Ciba Pharmaceutical Products—Imidazolines.**

2,569,666—**Bristol Labs—Antihistamine Salt of Penicillin.**

2,569,814—**Smith, Kline & French Labs.—B-Haloethylamines.**

2,570,286—**Sterling Drug—Tertiary-amino - 2 - aryl - 2 - (4 - quinolyl) alkane-Nitriles.**

2,570,39—**W. H. Gardner—Diagnosis of Allergies.** (*Continued on page 693*)

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Industry's Books

Physical Biochemistry, by Henry B. Bull, Ph.D., Professor of Chemistry. School of Medicine, Northwestern University, Second Ed., 355 pp., John Wiley Sons, Inc., New York, $5.75.

When he wrote Physical Biochemistry originally, Dr. Bull determined to include only that material which had been useful and significant in solving professional problems. This principle of selection applies to the Second Edition, as well as the first. Also retained in this edition is a "relentless emphasis upon the interrelationship of the physical and biological sciences and upon the value of a thorough understanding of purely physical phenomena in studying and interpreting biological systems." In addition, the reader will find in Physical Biochemistry considerable stress upon the important modern methods and instruments of research, including electrophoresis, light scatter, and the use of isotopes as tracer elements. Of further interest are the discussions of such topics as dielectrics, electrokinetics, viscosity, diffusion, and membranes; the use of biological illustrations wherever possible; and a mathematical development that can be readily followed by anyone who has an elementary knowledge of calculus. In modernizing the second edition, Dr. Bull has rewritten about two-thirds of the book, including recent advances where necessary and condensing and rewording some of the other discussions.

The Chemical Analysis of Food and Food Products, by Morris B. Jacobs, Ph.D., Adjunct Professor of Chemical Engineering (Food, Flavor, and Dairy Technology), Polytechnic Institute of Brooklyn, Second Ed., 902 pp., D. Van Nostrand Co., New York, $9.

The analytical methods of the food chemist are applied: in the development and enforcement of standards of identity, purity, or value; in problems of decomposition under either normal or abnormal storage conditions; in studies designed to improve or control the quality of natural or processed foods; in the determination of the nutritive value of foods for scientific, dietary, or labeling purposes; in the technical control of foods being processed; in the technical control or supervision of raw materials being purchased; or in problems of a toxicological or forensic nature. The scope of this book has been enlarged in order to serve these purposes. The fundamental matter of the first edition has been retained but each chapter has been expanded and several new ones have been added in order to obtain the objectives noted above.

History of Pharmacy, by Edward Kremers, Ph.G., Late Director, Course in Pharmacy and Professor of Pharmaceutical Chemistry, University of Wisconsin, and George Urdang, Ph.G., Professor of the History of Pharmacy, University of Wisconsin, Second Ed., 622 pp., Illus., J. B. Lippincott Co., Phila., $7.50.

The organization and plan of this 'History of Pharmacy" go beyond the merely chronological order which is so common in books of this kind. Facts and events have been grouped in accordance with their organic relationships, thus presenting an integrated picture of the development of all parts of the history of pharmacy. A completely revised and enlarged edition of the Kremers-Urdang History of Pharmacy of 1940, this new book has been changed in its content but not in its spirit and its goal. It has remained "a guide and a survey," to be used for teaching as well as for reading, as a book of reference so far as data and dates are concerned, and a book presenting and evaluating concepts. The most obvious innovation of the new edition is a chapter on the development of pharmacy in Spain.

Chemistry of Organic Compounds, by Carl R. Noller, Professor of Chemistry, Stanford University, 885 pp., W. B. Saunders Co., Phila.

This book is designed for those who desire a text that is comprehensive at the basic level, thus providing the better student with ample opportunity to acquire as much knowledge as he is able to assimilate. If too much material is presented and if everything is given equal emphasis, the average student may be overwhelmed. Hence only the physical properties, methods of preparation, nomenclature, chemical reactions, and uses of organic compounds are printed in the standard-sized type. Portions which deal with mechanism or which are considered to be of a supplementary nature are printed in smaller type. Since instructors will not be able to hold their students responsible for everything presented in the text, the material has been arranged and cross-indexed in such a way that sections or whole chapters may be omitted, or the sequence of chapters may be altered considerably without impairing the readability of the text.

Punched Cards, Their Applications to Science and Industry, Edited by Robert S. Casey, W. A. Sheaffer Pen Co., and James W. Perry, Massachusetts Institute of Technology, 306 pp., Illus., Reinhold Publishing Corp., New York, $10.

This book is directed principally to the needs of the individual scientist, engineer, or other technologist, whether in the laboratory, field, industrial plant, library, school or executive office. Its primary purpose is to furnish sufficient information to permit the application of punched-card techniques to individual problems. Part I is introductory and elementary. It contains sufficient information to permit an individual to set up and use a simple punched-card file. Part II consists of case histories of punched-card applications carefully selected to show what has already been accomplished. Part III is more general and theoretical in nature. Fundamental problems involved in applying punched-card techniques to intellectual activities, and vice versa, are discussed. Part IV is a study, speculative in nature, as to the role that punched cards and related devices may eventually play in relationship to other methods for coping with information problems. Part V is a bibliography on uses of punched cards in connection with scientific information.

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Parenteral Nutrition

(*Continued from page 605*)

calories. Examination of the data suggests that invert sugar may be administered with practically complete utilization at a rate about twice that which may be permitted with dextrose solutions.

More recently, another group of investigators[17] presented evidence that fructose is a better sugar for intravenous feeding than glucose. In contrast to the high degree of glycosuria usually following glucose injections, the maximum sugar loss was never more than 5.8 per cent with fructose injections. These observations suggest that intravenously administered fructose is rapidly converted into liver glycogen. In view of their findings, the investigators recommended the use of fructose in routine intravenous feeding.

Recently, there has been renewed interest in the use of ethyl alcohol by the intravenous route as a calorigenic material. Its use in this way as a source of calories was described[18] in 1939. In 1945, Moore and Karp[19] reported the successful use of intravenous alcohol, in 5 and 10 per cent concentrations, in the treatment of surgical patients suffering from inanition (undernutrition). In a new report covering a nine-year period, Karp and Sokol[20] not only reaffirm the value of intravenous alcohol for inanition but also note its usefulness in other conditions.

In discussing the intravenous administration of alcohol Van Itallie[21] pointed out that its utilization as a source of calories is considerably slower than that of glucose. He also remarks that an important consideration in the use of intravenous alcohol is the need for constant supervision and control so that undesired effects will not occur. In his opinion, the probable role of alcohol as a nutrient will continue to be chiefly that of a supplement to the caloric content of other parenteral preparations. Alcohol has been used in this manner, for example, in conjunction with amino acids in the parenteral feeding of surgical patients.

Prior to the production of protein preparations for parenteral administration, about a decade ago, intravenous alimentation was confined to the use of saline and glucose solutions; the value of which was strictly limited because of the absence of protein.[22] As explained by Young and McGowan,[8] for many years little attention was given to protein administration because it was assumed that the body possessed large stores which permitted a person to live for weeks or months without protein intake. However, it was shown that the proteins of plasma, liver and muscle are rapidly depleted where the intake is insufficient. Surgeons began to realize that the failure of wounds to heal properly resulted from protein deficiency. It was also realized that the edema which accompanies low serum protein levels may lead to serious complications, particularly in gastrointestinal surgery.

It is generally recognized that intravenous feeding took a great step forward in 1939. In that year, Elman and Weiner[23] reported that a mixture of a casein hy-

drolysate, glucose and saline was given intravenously to 35 patients as the sole source of food and fluid. These patients presented a variety of conditions and the duration of the feedings varied from one to 23 days. From the results of this work, Elman and Weiner concluded that the nitrogen needs of the body can be supplied by the intravenous use of a mixture of amino acids. Many subsequent reports confirmed these findings and have shown that the body is able to utilize parenterally administered amino acids, not only for energy purposes but in the synthesis of new protein as well.[21]

Today the parenteral administration of protein preparations is an important procedure in many cases when the alimentary tract requires rest or cannot assimilate enough food. According to Bock[24] there is an indication for parenteral protein administration whenever protein depletion occurs and when it is impossible to maintain ingestion and absorption of protein by the oral route. More specifically, parenteral proteins are indicated in some cases of extensive burns, peritonitis, severe hemorrhage, intestinal obstruction, pneumonia, empyema, severe tissue trauma, drainage wounds or sinuses, ascites, severe diarrheal conditions, regional enteritis, chronic ulcerative colitis, meningitis, and in some preoperative and postoperative cases. Conversely, as noted by Westermann,[25] treatment with intravenously administered amino acids is contraindicated in patients with cardiac decompensation, severe liver insufficiency, or acidosis.

Parenteral proteins can be supplied by blood, plasma, albumin, mixtures of pure amino acids or protein hydrolysates. Plasma and albumin have the advantage of supplying protein immediately and are of particular value where the protein deficit must be overcome rapidly.[8] However, as noted by Elman,[1] plasma is an inconvenient and expensive way to provide parenteral protein nutrition, since one liter of plasma contains only 60 Gm. of protein and requires four donors plus processing before it can be used. In contrast to plasma, amino acids have certain advantages. For one thing they are more physiological, since amino acid mixtures supply the building materials in a form needed to correct protein deficits throughout the body. Another advantage of amino acid mixtures over plasma is the relative simplicity and economy with which they may be given. Moreover, the amino acids can be injected along with glucose and saline. In passing, it may be noted that Elman[26] prefers to use the term, amino acid mixtures, to include both the pure crystalline combinations and the protein hydrolysates or digests.

Of course all the essential amino acids must be present in a mixture in order to synthesize body proteins.[24] Protein hydrolysate preparations which are provided for this purpose may be made by enzymatic or acid hydrolysis of a suitable protein material. Although other materials, like fibrin and beef plasma proteins are used, casein is the protein most generally employed because of its high biologic value, ready

(*Continued on page 680*)

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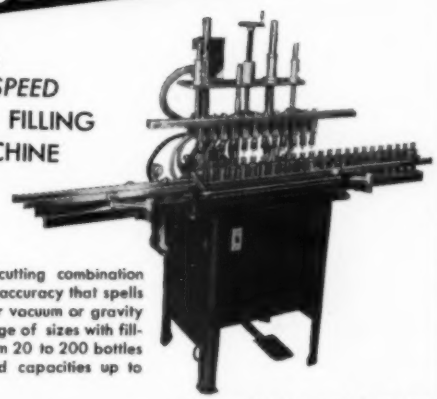

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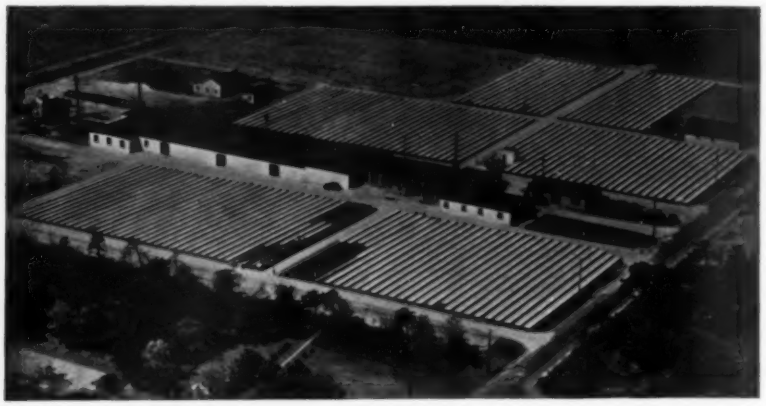

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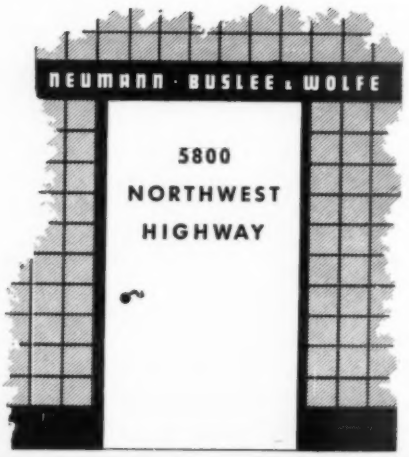

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Compounder's Corner

Improved Cold Cream

In formulating fatty creams, of which cold creams are the most important, says M. Fock (*Alchimist* 5:183, 1951), care should be taken that irritating emulsifiers are avoided. This can be done by using neutral emulsifiers such as cholesterin, cetyl alcohol, myristin and the like. As a rule, cold creams contain 15 to 20 per cent of solid components. Going beyond these limits is not advisable because the cream will not melt sufficiently on the skin. He states that good homogenizing improves both the stability of the cream and its ability to be absorbed by the skin. Fock offers the following formula for a cold cream which should be emulsified and homogenized at a low temperature:

Spermaceti	**9 parts**
Beeswax	**8 "**
Cholesterin	**1 part**
Ozokerite	**2 parts**
Petrolatum	**3 "**
Olive oil	**20 "**
Liquid petrolatum	**20 "**
Distilled water	**37 "**

View on Chlorophyll as a Deodorant

What may be the opinion of some medical men with respect to the deodorizing action of chlorophyll is reflected in the statement appearing in the *Journal of the American Medical Association* (147:99, 1951). In response to inquiries concerning the safety and efficacy of chlorophyll as a deodorant it was pointed out that chlorophyll as it occurs in plants is unstable, and the commercial preparations used as deodorants are modified derivatives of the green coloring matter of plants. Studies by one group of investigators have shown that a chlorophyll derivative will deodorize foul-smelling wounds. This action did not appear to be due to destruction of bacteria, since this chlorophyll preparation was not an efficient antiseptic. The apparent mechanism of action is, probably, one of adsorption or possibly oxidation or reduction of the odorous substances.

No satisfactory explanation has been offered for the deodorant effect of orally administered chlorophyll derivatives reported by Westcott in the *New York State Journal of Medicine* for March 15, 1950. Other workers have reported that chlorophyll was not absorbed from the gastrointestinal tract, and there is no evidence available as yet that identifiable derivatives of chlorophyll are present in body fluids or in the urine after ingestion of chlorophyll.

It is generally believed that most body odor is due to bacterial decomposition of sebaceous secretions on the skin. There is no evidence that chlorophyll decreases this secretion or alters the bacterial flora of the skin. Furthermore, satisfactory control tests have not been made with chlorophyll taken internally as a deodorant. Thus, not only is the mechanism of action unexplained, but it is not at all certain that the action exists except in the mind of the observer. There is no evidence that chlorophyll or the available derivatives have any harmful action. Moreover, it should be remembered that chlorophyll is a fairly constant constituent of a well balanced diet which includes green vegetables. Finally, says the *Journal*, one should consider the fact that many herbivorous animals, including the goat, consume large quantities of chlorophyll, and some of these are noted for their pungent aroma.

Ointment Classifications

As is pointed out in *Philadelphia Medicine* (46:1217, 1951), the physician has at his command a variety of ointment bases, each appropriate to some particular purpose. Penetrability is an important consideration in many cases and a classification of ointments according to this characteristic is as follows: (1) epidermic ointments (petrolatum, waxes) are not absorbed by the skin. They are used when an emollient protective action is desired. (2) Endodermic ointments (vegetable oils, lard, wool fat) are semi-absorbent. They are useful when counter-irritation is indicated. (3) Diadermic ointments (water-soluble bases, emulsions) penetrate the skin and encourage medicinal absorption.

Ointments may also be classified according to composition as follows: (1) Oleaginous bases—vegetable and animal fats—are usually prescribed for their emollient action. (2) Hydrocarbon bases are as greasy as oleaginous bases, but are less penetrating. They are being used less and less. (3) Absorption bases are hydrophilic, forming oil-in-water emulsions. These bases will release medication more rapidly and with more certainty than will the oleaginous bases. (4) Emulsion bases are true oil-in-water emulsions. They may be readily removed from skin and clothing with water. (5) Water-soluble bases usually contain the polyethylene glycols (carbowaxes) as major ingredients. They are completely soluble in water, will not stain clothing, will not hydrolyze or deteriorate, and will not encourage mold growth. They are compatible with almost all medicinal agents.

Thio-Stabilized Hair Dyes

In British patent 653,053, granted to A. H. Stevens, it is pointed out that hair dyes containing the usual oxidizing bases, like paraphenylenediamine and aminophenols, are readily oxidizable in the atmosphere and thus deteriorate rapidly. To overcome this disadvantage, reducing agents like sodium bisulfite, hydrosulfite and the like have been added to the dye solution. However, such agents are sometimes detrimental to the preservation or storage characteristics of dye solutions or creams. It has been discovered that the thio-reducing agents offer the advantage of affording better protection to the dye solution against oxidizing. If thio-reducing agents are added to hair dyes, proper preservation is ensured. Suitable agents include: thioglycerol, polythioglycols, thiocitric acid and other suitable thio-reducing agents. The following examples are given:

Black		
Paraphenylene diamine	**2.5**	**Gm.**
Aminodiphenylamine	**0.2**	**Gm.**
Ammonia solution (20%)	**10.0**	**cc.**
Thioglycollic acid	**0.15**	**Gm.**
Water, to make	**100.0**	**cc.**

Blonde		
Paraphenylene diamine	**1.5**	**Gm.**

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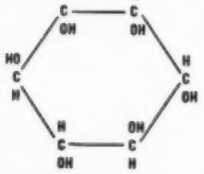

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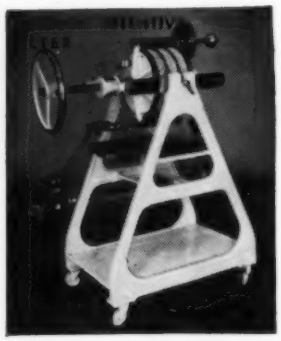

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Para-aminophenol	**0.8**	**Gm.**
Ammonia solution	**10.0**	**cc.**
Thioglycollic acid	**0.1**	**Gm.**
Water, to make	**100.0**	**cc.**

Such compositions may also serve as bases for the manufacture of dye creams. It is claimed that the substantial reduction in electrolyte content and the use of a thio-reducing agent make it possible to prepare creams which are stable and do not deteriorate.

Syrup of Choline Chloride

As noted in a leaflet recently issued by the University of Florida, College of Pharmacy, choline chloride is indicated in fatty infiltrations of the liver associated with alcoholism, infectious hepatitis, early cirrhosis, diabetes, and malnutrition. This lipotropic agent may be given in the form of capsules, each containing 0.5 of the drug, or it may be administered as a syrup. The following formula for a Syrup of Choline Chloride is given; the dosage being one teaspoonful as directed:

Choline chloride	**7.50 Gm.**
Citric acid	**0.20 Gm.**
Sodium benzoate	**0.03 Gm.**
Amaranth	**sufficient**
Syrup raspberry, to make	**30.00 cc.**

Bath Preparations

In a comprehensive discussion on both preparations, H. Streatfield (*Soap, Perf & Cosmetics*, 24:775, 1951) reviews the raw materials entering into such products, considers certain factors which must be borne in mind in their manufacture, and presents a number of typical formulas as guides to individual experimentation. For instance, a bath essence may be made along the following lines:

Sulfated castor oil (cosmetic grade)	**50 parts**
Teepol	**10 "**
Propylene glycol	**5 "**
Diethylene glycol monoethyl ether	**5 "**
Perfume oil	**10 "**
Distilled water	**20 "**

Another illustrative formula for a bath essence calls for the use of:

Sulfated castor oil	**40 parts**
Triethanolamine lauryl sulfate	**5 "**
Propylene glycol	**8 "**
Benzyl alcohol	**5 "**
Sodium hexametaphosphate	**2 "**
Perfume oil	**10 parts**
Distilled water	**30 "**

More specific is the following formula for a pine bath essence:

Sulfonated castor oil (ammonia finish)	**45 parts**
Pine tar	**5 "**
Cedarwood oil	**5 "**
Pine bouquet oil	**5 "**
Water, softened	**40 "**
Fluorescein	**sufficient**

A typical example of a bath oil, with its higher perfume oil content, is given by Streatfield as follows:

Mineral oil, light	**38 parts**
Isopropyl myristate	**25 "**
Ethyl oleate	**10 "**
Stearamide	**7 "**
Perfume oil	**20 "**

So-called bath milks may be formulated according to the following example:

Stearic acid	**3.0 parts**
Oleic acid (first quality)	**1.5 "**
Oleyl alcohol	**2.0 "**
Mineral oil (light grade)	**8.0 "**
Triethanolamine	**2.2 "**
Perfume in diethylene glycol monoethyl ether (1 in 3)	**12.0 "**
Distilled water	**71.3 "**

In considering the formulation of modern foaming or bubbling baths, Streatfield notes that triethanolamine lauryl sulfate and various other liquid detergents are apt to deteriorate and lose some of their high foaming capacity when kept for long periods, as aqueous solutions, in storage. The chlorsulfonated fatty alcohols do not seem to be at such a disadvantage in this respect. It is also possible that modern sequestering agents might possess a stabilizing action in this direction. The alkyl aryl sulfonates appear to be relatively stable in solution but do not, perhaps, produce so profuse a foam. The foam-retention properties of water-soluble gums and gum substitutes, when used in weak dilution, should not be overlooked. Many of these viscous substances help to strengthen the walls of the bubbles and thus prevent the foam from speedily collapsing. However, they also tend to reduce the size of the bubbles somewhat.

Such utility is illustrated in the following liquid type bubbling bath:

Triethanolamine laurly sulfate	**40 parts**
Propylene glycol	**8 parts**
Perfume oil	**2 "**
Sodium alginate (2 per cent solution in water)	**50 "**

A dry, powdered preparation of this type may be prepared from:

Sodium lauryl sulfate	**55 parts**
Sodium carbonate (dried, powdered)	**30 "**
Saponin	**7 "**
Soluble starch	**7 "**
Perfume	**1 "**

Borax may be used in place of the soda if desired. The inclusion of soluble starch is optional. Sodium hexametaphosphate may be included up to 10 per cent, in which case the sealed packets should be even more impervious to moisture than usual. In any case, packing with dried materials in a non-humid atmosphere should be normal practice, and all foam bath powders should be sealed into inner, water-resistant envelopes.

Another modern foam bath powder makes use of:

Sodium alkyl aryl sulfonate	**50 parts**
Sodium sulfate	**25 "**
Sodium carbonate	**24 "**
Perfume oil	**1 part**

In general, says Streatfield, bath cubes and tablets consist of the various sodium carbonates and borax in admixture, together with starch or some other substance that will prevent the cube or tablet from becoming a solid, stone-like block. The latter phenomenon will certainly arise, for example, in the case of a well-compressed sodium carbonate tablet, on storage, unless it has been granulated with starch, or the like, prior to compression. Sodium laurly sulphate, in quite low proportion, is sometimes added to bath cube formulations.

The bath cube mixture, after having been carefully chosen, is thoroughly mixed, the perfume being incorporated by spraying during the mixing process. After sifting, the compressing into cubes or tablets is carried out either by means of hand-operated hydraulic presses or, more rapidly, by special automatic compressing machines.

Indicative of the composition of such products is the following formula for a bath tablet:

Sodium carbonate monohydrate, powdered	**50 parts**
Borax	**37 "**
Starch	**10 "**
Sodium lauryl sulfate	**3 "**
Perfume and color	**sufficient**

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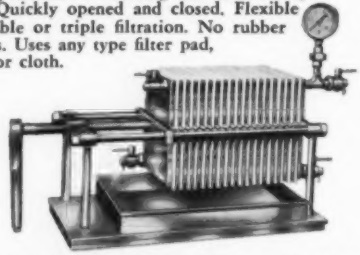

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Advancing Therapy

Terramycin in Ophthalmology

The usefulness of terramycin in the treatment of eye infections is shown by the work done by Y. Mitsui and his associates (*Antibiot. & Chemother.* 1:253, 1951). They noted that other workers had reported the efficacy of this antibiotic in treating trachoma and therefore decided to try it in other ocular infections commonly seen in Japan. From their studies it appears that terramycin is the drug of choice in the following infections: angular conjunctivitis, micrococcal blepharitis, marginal blepharitis, pneumococcal conjunctivitis, chronic dacryocystitis, serpent ulcer of the cornea, infection by *Neisseria catarrhalis*, and acute purulent inflammation. In conjunctivitis due to Koch-Weeks' bacillus the efficacy of terramycin may be unsatisfactory, unless a high concentration is used. In viral conjunctivitis, epidemic keratoconjunctivitis, there seems a low degree of effectiveness. The effect in gonococcal conjunctivitis has not been determined due to lack of cases. The effect of terramycin in tuberculous or allergic eye conditions, such as phlyctenular keratoconjunctivitis, serous iritis of idiopathic nature, and scrofulous interstitial keratitis, is encouraging.

Oral Cortisone in Allergy and Asthma

S. Friedlaender and A. S. Friedlaender (*J. Allergy* 22:291, 1951) have found that orally administered cortisone, given in the form of 25 mg. tablets, is readily absorbed from the gastrointestinal tract, and in comparable dosage affects allergic diseases in much the same manner as the saline suspension of cortisone given by intramuscular injection. Symptoms of hay fever, asthma, urticaria, atopic dermatitis and contact dermatitis are often completely relieved during oral cortisone therapy. The onset of such improvement appears to be more rapid than with cortisone suspension administered by injection, but the therapeutic effect of each dose of the oral material is dissipated more rapidly. The effects of oral cortisone, although striking in many cases, are of relatively brief duration, and chronic symptoms recur shortly after withdrawal of the hormone. Close supervision of the patient is necessary to avoid the known side effects of adrenal hormone therapy.

In another report in the *Journal of the American Medical Association* (146: 1381, 1951), the same authorities cited the effect of cortisone by mouth in the treatment of bronchial asthma. Cortisone was administered orally in 12 cases of severe bronchial asthma, with a good therapeutic response occurring in nine patients during the first 24 hours of therapy. An average daily dosage of 150 to 200 mg. divided into 25 or 50 mg. doses at four to eight hour intervals produced an effect comparable to that obtained with an equivalent amount of the saline suspension of cortisone administered intramuscularly. The onset of improvement occurred more rapidly with the oral preparation, sometimes within two to six hours of the initial dose. Relapse in symptoms occurred in all cases within a few days after cessation of the hormone.

Zirconium for Poison Ivy

The possibility that zirconium may be effective in the treatment of ivy poisoning is indicated in the report of G. A. Cronk and D. E. Naumann (*J. Lab. & Clinc. Med.* 37:909, 1951). In their preliminary work, an ointment of the following composition was used to treat 47 cases of poison ivy dermatitis:

Zirconium oxide	**4.37**	**per cent**
Stearic acid	**13.46**	**" "**
Potassium, as KOH	**1.86**	**" "**
Glycerine	**2.28**	**" "**
Water and CO_2	**78.03**	**" "**

In 39 or 85 per cent of the cases, application of this zirconium hydrate ointment resulted in relief of pruritus and regression of the dermatitis within 24 hours after starting therapy. None of the 49 cases in which the ointment was applied topically showed evidence of local or systemic toxicity. In a limited control study, early application of zirconium hydrate apparently was able to prevent the development of poison ivy dermatitis.

The idea for using zirconium came from work done by E. Wainger. He found that when he added zirconium salts to urishiol, the toxic principle of poison ivy, an inactive precipitate was formed. Fluid filtered from this did not cause ivy poisoning symptoms when tested on susceptible volunteers.

Antihistamines for Dysmenorrhea

Successful treatment of very severe cases of dysmenorrhea by the administration of antihistamines is reported by C. MacPherson (*Canadian M. A. J.* 64:448, 1951). His routine was to give about a dozen antihistamine capsules or pills to the patient with instructions to take one every four hours before the menstruation is due. When the period cannot be predicted, medication is started as soon as the woman knows that menstruation is imminent. This treatment was successful in 24 cases, with partial relief in two instances and no relief in two others. MacPherson emphasizes the fact that once the pain is relieved, it does not return during the current period, so that repeated administration of the drug is not necessary. There has been no evidence of loss of potency when the treatment has been used in successive periods. It is pointed out that patients respond to different antihistamines, so that if a given patient does not respond to one antihistamine, another should be tried.

Phenacemide in Epilepsy

In the study published in the *Journal of the American Medical Association* (147:17, 1951), M. W. Tyler and E. Q. King have classified and tabulated the extensive clinical reports on the use of phenacemide (Phenurone) in the treatment of epileptic seizures. In their conclusion, based on these data, they state that phenacemide or Phenurone has proved to be effective in controlling or definitely reducing the frequency of seizures in a fairly large percentage of patients who have not responded to other anticonvulsant drugs. However, four deaths due to hepatitis and two due to aplastic anemia were reported prior to the initiation of controls for observing the patients. Personality changes may also develop. The drug should not be used unless

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other established anticonvulsants have failed to be effective. The patient or his family should be fully aware of the nature of the drug and of the side effects which may be produced. They should realize there is a certain risk which must be weighed against the possible benefits derived from its use. The physician should instruct the patient to watch for signs of toxicity and report them promptly. The patient should be seen by the physician at frequent intervals. To this end, only enough phenacemide to last for a short, designated interval should be prescribed.

In the same issue of the *Journal* (p. 60), the Council on Pharmacy and Chemistry states that phenacemide (Phenurone) has been accepted for admission to "New and Nonofficial Remedies."

Selenium for Seborrheic Dermatitis

In their search for newer and more efficient substances for use in the treatment of the seborrheic dermatoses, W. H. Slinger and D. M. Hubbard (*Arch. Dermat. & Syph.* 64:41, 1951) decided to try selenium. To this end they developed a shampoo based on a synthetic detergent and containing 2.5 per cent of selenium disulfide. As a first step the irritant and sensitizing properties of the shampoo containing selenium disulfide were investigated. It was found by 48-hour and repetitive patch tests for four weeks that the active constituent of the shampoo, selenium disulfide, produced neither primary irritation nor sensitization reactions in 100 normal subjects. The shampoo, containing selenium disulfide, was employed therapeutically, over periods from one to seven months in 104 cases, 90 of which were cases of seborrheic dermatitis, without inducing signs of irritation, sensitization or toxicity. Eighty-one per cent of the cases of seborrheic dermatitis of all degrees of severity were controlled completely by the use of the shampoo. Ninety-five per cent of the mild and 85 per cent of the moderate cases of this disorder of the skin were controlled completely during the period of use of this shampoo. The use of the shampoo exerted no influence on the clinical course of seven cases of tinea capitis associated with the presence of *M. audouini*. Two cases of atopic dermatitis and three cases of exfoliative dermatitis were benefited by the use of the shampoo, in that the amount of scaling of the scalp was reduced thereby.

Action of Anticancer Agents

In a paper presented during the 75th Anniversary Meeting of the American Chemical Society, H. E. Skipper, L. L. Bennett, Jr. and G. P. Wheeler reported that certain agents of widely differing chemical and physical character have now been shown to possess temporary anticancer activity. There is a very good correlation between the temporary antileukemic action of these agents in experimental animals and man.

As a portion of a screening program in search for useful compounds in the chemotherapy of cancer, it has been considered important to study the mechanism of action of known classes of anticancer agents. The agents which have been under investigation are: carbamates, nitrogen mustard, folic acid inhibitors, purine antagonists, potassium arsenite, colchicine, cortisone, ACTH, and x-radiation. The plan of the program which they discussed has entailed: (a) Studies of the anatomical distribution and excretion of radioactive atoms from certain labeled anticancer agents in normal and neoplastic mice. (b) Investigations on the metabolic rate of normal and neoplastic tissue using labeled precursors. (c) Observations on the inhibition of nucleic acid synthesis resulting from administration of anticancer agents. (d) Studies on the exchange or reaction of anticancer agents with nucleic acid moieties. (e) Studies on the reversal of the antileukemic action of 4-aminopteroylglutamic acids. It would appear from these studies that one of the primary biochemical effects of certain anticancer agents on tissues is the inhibition of nucleic acid synthesis.

Podophyllin in Tinea Capitis

In their preliminary report, say F. Reiss and D. D. Doherty (*J. A. M. A.* 147:225, 1951), evidence was presented that a 0.2 per cent ointment of podophyllum resin (podophyllin) in an oxycholesterol-petrolatum ointment base on a polyethylene glycol base, had a beneficial effect upon the course in several cases of tinea capitis. Further clinical trial of this medication, while producing results not quite up to earlier expectations, indicated that podophyllum resin was sometimes a useful agent in the treatment of this rather recalcitrant disease.

Their latest report covers 121 cases of tinea capitis treated with a 0.2 per cent resin of podophyllum ointment alone and in combination with x-ray epilation. Fifty-six patients were cured, 26 with x-ray epilation combined with podophyllum resin treatment and 30 with podophyllum resin treatment alone, 19 improved, and 21 showed no change. The agent was useful in some cases of tinea capitis due to *M. audouini*, *M. lanosum*, *T. crateriforme*, and *T. sulfureum*. The length of time required to achieve clinical cure in those cases in which podophyllum resin ointment was used alone did not differ appreciably from the length of time required in those cases in which both podophyllum resin and x-ray epilation were used.

Fumagillin for Amebiasis

A new antibiotic, designated "antibiotic H-3" or fumagillin, has been isolated from *Aspergillus fumigatus*. Studies *in vitro* and *in vivo* demonstrated that it has amebicidal properties. In the studies reported by A. K. Hrenoff and M. Nakamura (*Proc. Soc. Exper. Biol. & Med.* 77:162, 1951) fumagillin was found to be effective *in vitro* against *E. histolytica* at concentrations of 1: 10,000,000 to 1: 15,000,000. Preliminary in vivo studies on monkeys naturally infected with E. histolytica indicated that fumagillin possess significant amebacidal activity.

Antituberculous Effects of Surface-Active Agents

The development of experimental tuberculosis in mice is markedly inhibited by injection of certain non-ionic, water-soluble, surface-active agents of low toxicity, obtained by reaction of ethylene oxide with condensation products of formaldehyde with *p-tert*-octylphenol, report, J. W. Cornforth and his associates (*nature* 2:151, 1951). The products tested tended to become less toxic and more active as molecular size increased and, with one exception, all, whether active or inactive *in vivo*, showed an approximately equally low bacteriostatic power. The investigators consider it doubtful, therefore, that bacteriostatic action is responsible for antituberculous effect, in spite of the high blood concentrations obtainable. Nor is there any evidence that the hyperlipaemia, and loss of lipids from the adrenal glands, which was observed, is associated with chemotherapeutic effect. The detoxifying action of the higher polymers on the toxic lower members of the series, and their persistence in the blood suggests the possibility of using these compounds in association with other, even toxic, drugs having high tuberculostatic activity *in vitro*.

Perfumer's Shelf

Patchouli Oil from Tanganyika

At present when supplies of patchouli oil are very scarce, E. Brown, H. Y. Islip and W. S. A. Matthews (*Colonial Plant & Animal Prod.* 1:312, 1950) feel that there is considerable interest in a sample of this oil from Tanganyika. Obtained in a yield of about 3 per cent, the oil had been distilled from plants originally gotten from the Seychelles and Nyasaland. The sample was paler in color and less viscous than is usual for commercial patchouli oils and the odor was not characteristic, having a decided lemon-like note in addition to that of patchouli. When the oil was tested on an absorbent strip, the lemon odor disappeared after an hour or so, leaving the normal patchouli odor. The properties of the oil were determined and its characteristics compared with those of samples obtained from Seychelles; these data being given in the following table:

	Present sample	*Ranges of samples from Seychelles*
Specific gravity	0.9642	0.940 to 0.970
Optical rotation	−54.44°	−39.6° to −55.6°
Refractive index	1.5079	1.502 to 1.510
Acid value	0.9	0.3 to 3.2
Ester value	1.6	0 to 5.3
Ester value after Acetylation	26.1	—
Aldehydes, as citronellal	1.2	—
Solubility in 90 per cent v/v alcohol at 15.5°C.	Soluble in 7.5 volumes and more	1 in 0.5 vol. to not soluble even in 12 vol.

It is evident that apart from the ester value after acetylation and the presence of aldehydes, the analytical constants of the present sample are in agreement with those obtained for samples of Seychelles patchouli oil. Traces only of aldehydes are recorded as being present in patchouli oil and the presence of 1.2 per cent of aldehydes (calculated as citronellal), taken in conjunction with the odor of the sample, suggests that the oil has been contaminated to a small extent. Further, it would seem that the contamination was probably with oil of *Eucalyptus citriodora*, which is known to have been produced previously by the planter. On the basis of these findings, it is believed that if an oil similar to the present sample, but free from contamination, could be supplied, it would probably compare favorably with commercial patchouli oils of Seychelles origin. Such an oil would find a ready market.

Anisyl Aroma in Perfumery

In discussing the value of the anisyl esters and anisates, C. Morel (*Soap, Perf. & Cosmetics* 24:679, 1951) points out that although the anise aroma is widely employed for flavoring dental and medical preparations, foodstuffs and liqueurs, the usage in perfumery is rather that of an auxiliary. Complementary to the phenylethyl mellowness and the cinnamyl aromatic warmth, the anisyl odor pattern is particularly useful in perfumery composition because of the marked quality of the anise sweetness.

Anisic alcohol and/or aldehyde, although capable of producing the desired degree of pleasing sweetness, are inclined to manifest an early aftermath too redolent of a dentifrice. To overcome this defect and control with great precision the degree of induced sweetness, advantage is taken of the ideal complement afforded by the balsamic-hyacinth note of cinnamic alcohol, combining seven parts with five parts of anisic alcohol. This 7:5 admixture is very useful as a basic undertone and fixer for bath salt perfumes and also covers very well the earthiness of face and talcum powder components, while in replacing anisic alcohol with anethole, a valuable foundation for such soap perfume bases as carnation, heliotrope, jasmin, lily, lilac, new mown hay, trèfle and wallflower, results.

Conversely, it is found that seven parts of anisic alcohol, when used with five parts of coumarin, dimethyl hydroquinone, heliotropin or vanillin, enhances the florality of these bodies by diminishing the custard powder-chemical note that is so often too obtrusive. Also, in a similar way, anisic aldehyde, when used up to about 30 per cent, subdues the initial naphthenic overtone of Ketone D (Oranger), fragarol, nerolin and yara yara.

In brief, summarizes Morel, the anisic-cinnamic complex is of great help in the fundamentals of heliotrope, lilac and wallflower, bases, using smaller amounts in chypre, foin coupé, fougère and trèfle compositions, while combinations of the alcohol, aldehyde, acid and anethole exert an important influence on the sweetness and tenacity of acacia, cassie, mimosa, gardenia, jasmin, honeysuckle, tuberose, violet and ylang fine perfumes, and cosmetic and toilet soap basic compositions.

Components of Black Pepper Oil

In a paper which they delivered before the Twelfth International Congress of Pure and Applied Chemistry, held in New York City, E. J. Hewitt, J. J. Ritter, K. S. Konigsbacher and T. Hasselstrom pointed out that while the pungent principles of black pepper are well described, little is known about the flavor component, the volatile pepper oil, beyond the fact that it contains phellandrene, caryophyllene, possibly limonene, and methyl pyrroline. In their investigation black pepper from the Malabar Coast, India, harvested in January 1950 was employed as starting material. The pepper was ground with solid carbon dioxide and then either directly steam distilled or extracted with a solvent and subsequently steam distilled, 3.2 per cent of volatile oil was isolated, having a specific gravity of 0.85, index of refraction, 1.4730, and no appreciable saponification number. The oil gave a positive Schiff's test. It contained no sulfur and very little nitrogen or oxygen. The pepper oil was washed with sodium bicarbonate and boric acid solutions, the latter yielding a minute and as yet unidentified amount of an oil which seems to contribute a vital part to the pepper aroma. The oil was then distilled and all cuts were recombined into five fractions: monoterpenes, oxygenated monoterpenes, and sesquiterpenes. Each of these fractions was redistilled separately. The boiling range of the mono- and bicyclic terpene indicated that it may contain any or all of the following compounds: α-pinene, β-pinene, α-thujene, camphene, sabinene, Δ^3-carene, Δ^4-carene, β-myrcene, phellandrene, and limonene. Treatment

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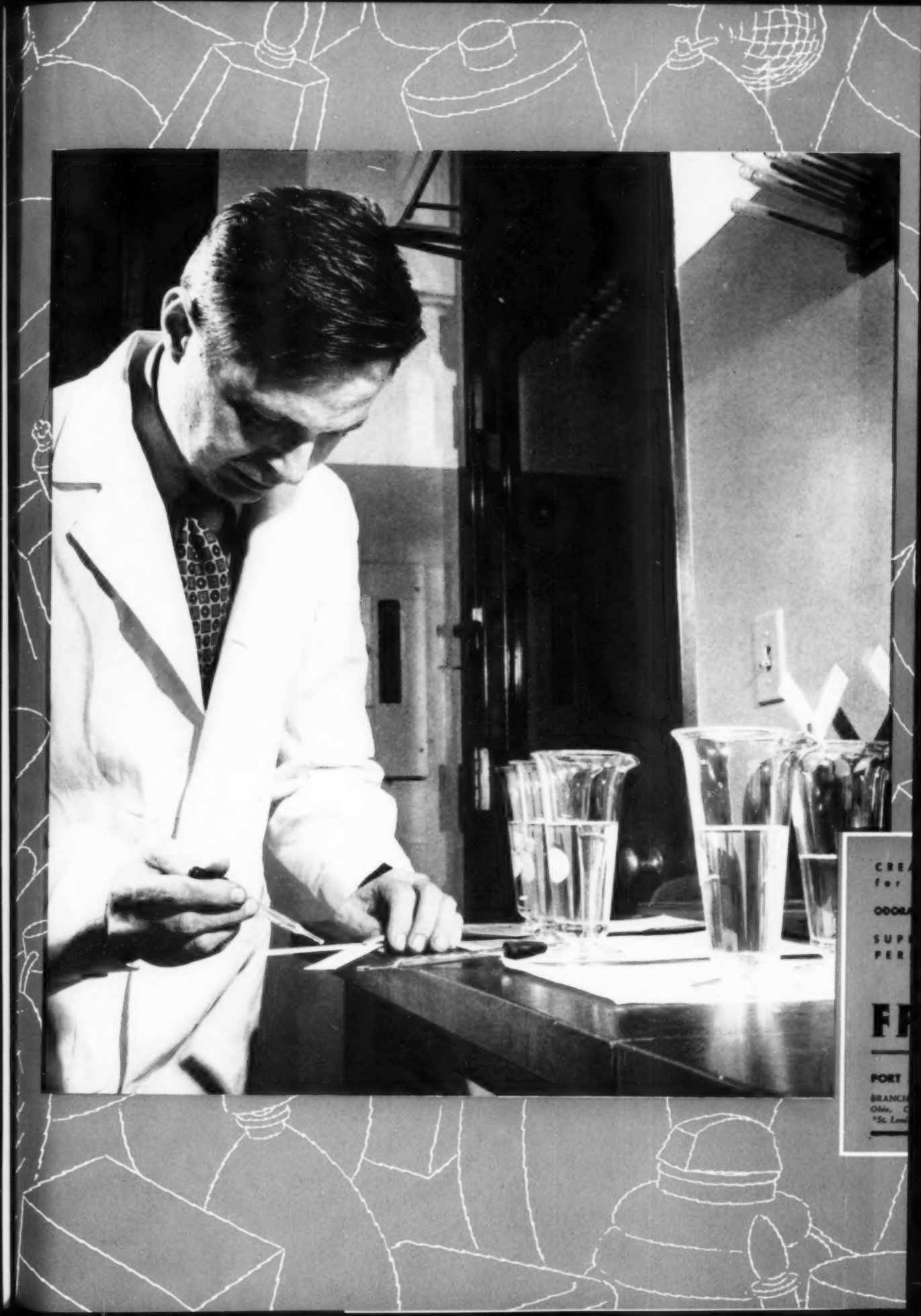

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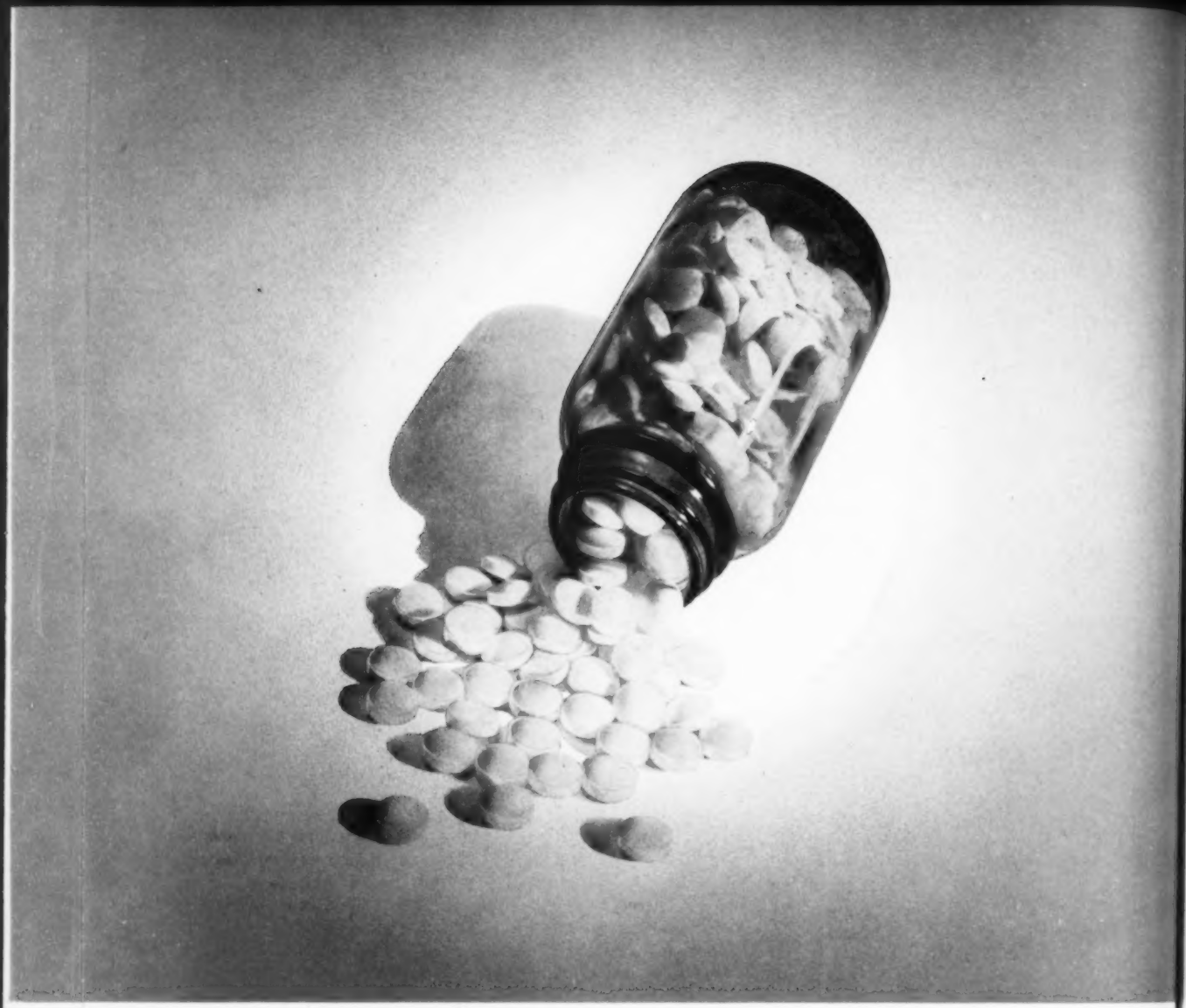

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with hydrogen chloride gave dl-limonene hydrochloride indicating the presence of a pinene or limonene or both. Treatment with nitrosyl chloride following Ehestadt's procedure, yielded a solid nitrosochloride, probably that of α-pinene. Oxidation with dilute potassium permanganate yielded nopinic acid, showing the presence of β-pinene. Reaction with nitrous acid gave a minute amount of the nitrosite of phellandrene. Bromination yielded the tetrabromide of dl-limonene.

The higher fractions yielded the semicarbazone of citral. Preliminary evidence for the presence of citronellal has been found. The sesquiterpene fraction was hydrated by means of a modified Aschan reagent, yiedling a solid alcohol. The alcohol and its phynylurethane were identical with those prepared from authentic β-caryophyllene.

North Dakota Fennel Oils

The fennel oils studied by C. E. Miller (*J. A. Ph. A.*, Scient. Ed. 40:377, 1951), were obtained from the whole plant of *Foeniculum vulgare* which was grown on the experimental farm at North Dakota Agricultural College. The 1949 crop of 625 lb. was harvested from an area of 4,800 square feet, representing a yield of 5,667 pounds per acre. The plants were harvested in the flowering stage just before heavy frost, partially cured in the field, and then steam-distilled. The 1949 crop yielded 384 Gm. of oil, corresponding to a yield of 0.24 per cent on a moisture-free basis. The 1948 crop was comparable in yield, although a different plot of ground was used.

The two samples of oil were light green in color. The odors were sweet and strong, resembling that of anethole, and the odor of the 1948 crop seemed more pronounced. Other physical and chemical characteristics of the two oils are given in the following table:

	1948 Oil	*1949 Oil*
Specific gravity, 25°	0.8902	0.8833
Index of refraction	1.4984	1.4918
Specific rotation	+40.5°	+57.6°
Congealing temperature	−7.5°	−18.5°
Solubility in 90 per cent alcohol	4 volumes	4 volumes
Saponification value	14.6	14.7
Ester value	14.3	14.3
Acid value	0.27 cc.	0.23 cc.
Iodine value	230.5	233.5
Per cent ketone	6.0	1.5

Miller makes the suggestion that the marked difference in congealing points and per cent of ketone of the two oils may possibly be attributed to differences in soil composition. From a study of the characteristics the oils are not considered to be of U. S. P. quality.

Jasmonene

Jasmonene, a powerful synthetic jasmine fragrance, has been made available by S. B. Penick & Co., 50 Church St., New York 7, N. Y. It is said to be an especially timely offering because of the current high price of jasmine absolute. It is a product developed by the Penick laboratories and those responsible for its promotion state that a little Jasmonene goes a long way to bring out the full beauty of natural jasmine. Perfumers and soap manufacturers will be interested in the economy angle, as the new product is sold at a comparatively low price. Samples may be had on request.

Products from Spanish Cypress

In studies of Spanish-cypress (*Cupressus sempervirens*), M. Fesneau (*Ind. Parfum.* 6:60, 1951) found that steam distillation of the stems gave 1.66 per cent of an oil with the following properties:

Specific gravity	0.885
Specific rotation	19°
Index of refraction	1.476
Acid number	0
Ester number	25.4
Acetyl number	46.6
Solubility in 90 per cent alcohol	1.5

The known constituents of this oil are furfuryl, diacetyl, *d*-α-pinene, *d*-α-camphene, *d*-sysilvestrene, cymolketone, sabinol, terpineol, alcohol $C_{10}H_{18}O$, sesquiterpene (*l*-cadinene), cedroll.

Data with respect to the concrete, obtained by extraction of the fresh leaves with benzene, and the absolute, obtained by extraction with 95 per cent ethyl alcohol, are summarized as follows:

	Concrete	*Absolute*
Yield	1.3 to 1.8%	Approximately 70%
Nature	Semi-solid wax	Pasty wax
Color	Strong olive green	Green
Odor	Agreeable, more delicate than than of leaves	More delicate than that of concrete
Fusion point	40-45°	—
Acid value	140	106
Saponification value	196	151.2
Specific gravity	—	0-985

Steam distillation of the cones or fruit gave 0.7 per cent of an oil with the following properties:

Specific gravity	0.8875
Specific rotation	22°
Index of refraction	1.4749
Ester number	19
Acetyl number	45.5

The concrete essence from the cones was also isolated; yielding 0.8 to 1.0 per cent of a deep olive green, semi-hard wax.

Composition of Gum Turpentines

In continued investigations on the composition of the oleoresin present in certain pines, N. T. Mirov (*J. A. Ph. A.*, Scient. Ed. 40:410, 1951) studied the composition of the gum turpentines obtained from *Pinus echinata, P. rigida and P. ponderosa*. Thus, the chemical composition of turpentine of *Pinus echinata* from North Carolina was found to be as follows:

d-α-pinene	85 per cent
l-β-pinene	11 " "

Pinus rigida turpentine, also from North Carolina, consisted of:

l-α-pinene	65 per cent
l-β-pinene	20 " "
l-limonene	10 " "

Turpentine of *Pinus ponderosa* from south-western Utah had the following composition:

dl-and *d*-α-pinene	45 per cent
dl-and *d*-Δ^3-carene	40 " "
l-limonene	2-3 " "
Sesquiterpene *l*-longifolene	10 " "

Dermatitis Due to Cinnamon

Dermatitis due to cinnamon oil, says, W. Leifer (*Arch. Dermat. & Syph.* 64:52, 1951) is either a rare event or one rarely reported. Only six references to dermatitis from cinnamon or cinnamon oil have been found. In the case reported by Leifer a chronic vesicular dermatitis of the hands of five years' duration was found to be due to tooth paste flavored with cinnamon oil. The hand eruption had occurred first and had apparently been induced by repeated contact with cinnamon powder. Patch tests with cinnamon oil, 1 per cent in alcohol, gave a 4+ reaction. Cure of the entire eruption followed cessation of contact with cinnamon. The lips and buccal mucous membrane had not been sensitized. Apparently, when the skin is the original surface sensitized, the mucous membranes are seldom sensitized on a clinical level. Conversely when the mucous membrane is the original surface sensitized, the skin almost always shares in the sensitization. Ingestion of cinnamon powder was followed by itching of the hands in 12 hours. Ingestion of cinnamon oil was followed by itching and vesiculation of the hands after five days (delayed reaction) on one occasion and after 12 hours on a second occasion.

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Abreast Of The Markets

Markets Retain Sluggish Pace in October; Consumers Are Maintaining Small Inventories as Safety Factor

The market last month was again unusually sluggish for this time of the year, with very few changes having taken place in the essential oil prices, one or two in the botanicals, and hardly any changes of importance in the chemical line.

In view of the international situation, and the concerted effort on the part of the United States to step up its defense preparations, such items as alcohol, glycerine, and mercury became more in demand. Menthol, another commodity greatly affected by the war situation, was lower than $10 for the first time in many months. It was still impossible to get any menthol from China due to the shipping embargoes in effect, while Japan has not yet become a major source of supply. Should a peaceful settlement be reached over the Korean war in subsequent months, a large supply of menthol will probably be available from China—a development which would change the entire picture.

In the essential oils consumers were buying just those materials they needed for use at the time of purchase. Such a procedure has been attributed to the high prices of most of the items coupled with the uncertain nature of the future. Apparently consumers are now becoming wary of stocking up heavily, lest a peaceful settlement occurs in the foreign crises and prices begin to decline, leaving them over-stocked. On the other hand, these consumers are also fearful of getting too short in their supplies, in the event of an additional international emergency, when replacements would become even more inaccessible in the already-difficult items. In the case of bergamot oil, spot supplies are at their lowest point, not only because the Italian Consortium has pegged the price in the vicinity of $15, but also because there have been no large shipments to this country since last April.

As far as the citrus oils are concerned, the D&O NEWS reports that in Italy that government has just lifted restrictions on selling the fruit abroad. Italian growers are, therefore, now looking toward the rest of Europe and England with an eye to the fresh fruit market. They have begun to sell the fresh fruit to these countries, in preference to extracting the essential oils from the lemon and orange fruits. This is the reason Italian citrus oils are so high in price and so limited in supply.

American orange oil is in a far more favorable position than it was three months ago. Some independent producers in California have been selling the oil for around $2.15, while the Exchange brand remained at $2.75. The Florida orange oil industry is still negligible.

Lime oil has had a serious setback, having incurred serious damage in the past hurricane in Jamaica, and having suffered greatly by the ravages of the "black fly" in Mexico, coupled with a serious frost earlier this year.

On the botanical scene, new difficulties seem to appear each month to make the importation of these barks, roots, and leaves, even more arduous. Because of this fact, consumers are urged by spokesmen in the trade to build up their inventories as greatly as they deem wise, in order to counteract any new outbreaks of hostilities such as those in the Far East.

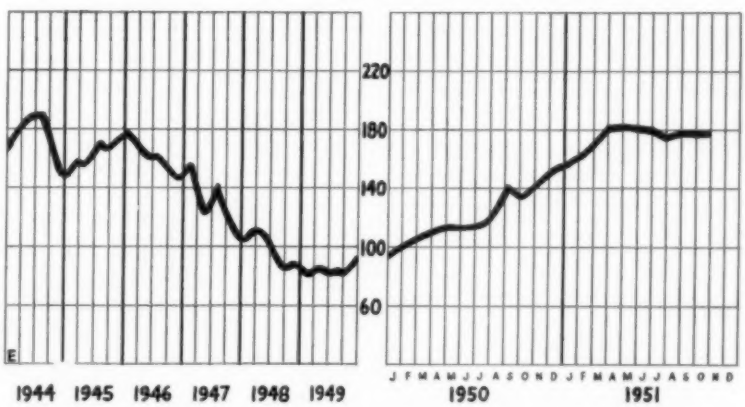
In other parts of the world, botanicals have been affected just as seriously as though they were in the direct path of the war. For example, the European botanicals are very short in supply because the marginal labor of that region, as was mentioned some months ago, has all been absorbed by the respective governments and diverted from botanical collections to the more serious task of preparing war materials. A direct result of these conditions is that the prices of European botanicals are this year a good deal higher than they were last year; the crops are smaller, and in many cases, late, because of a lack of labor supply. In other cases, that land formerly devoted to the growing of botanical type plants has been converted to farm land, for the production of crops for food.

The inescapable fact seems to be that, especially in the case of botanicals, many sources of these items around the world have been cut off from the consuming areas, in some cases altogether, in others, only partially. But the overall result is to decrease the available supply of botanicals by a considerable amount.

It is expected that the markets in general will become more brisk by the turn of the year, for by that time many of the consumers will have to re-enter the market to replenish their depleted

(*Continued on page 678*)

15 Essential Oils—Weighted Price Index. 1926 = 100.



The essential oils index advanced a trifle from 177.3 to 178.2. Clove oil was higher; anise and cassia oils, lower.

Prices quoted in this section were current on the first of this month.

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Glycerine, Alcohol Demand Stronger Due to Govt. Consumption; Vanilla Remains Steady; Menthol Continues Down, Now Under $10

While the demand for glycerine has apparently increased considerably over the past month, spokesmen in the trade suggest that supplies of the material may become quite limited in the near future. This possible development is based on the fact that during the summer months production of glycerine was cut to a large degree because soap production, source of glycerine, was greatly curtailed. The results of that summer cut in glycerine production are only now being felt. This, added to the increased output of munitions for the country's defense preparations, requiring the use of large quantities of glycerine, indicates that the over-all market will probably become much tighter.

Demand for Alcohol Greater

The demand for alcohol during October was stepped up, according to sources in the trade, who reported that the supply position nevertheless remained quite satisfactory for the time being. The general belief is that, in view of the expected increase in defense preparations over the coming months, the demand for this item will be stepped up more rapidly as time goes on.

One reason for the ample supply of alcohol on hand at the present time is the enormous amount of alcohol which has been imported over the past year. Coupled with this fact is the high production of domestic material, which was matched and surpassed only during the last war.

Comparing the alcohol pictures of the last two years, the alcohol tax unit of the Bureau of Internal Revenue, Treasury Department last month released the following data on the supply, production, withdrawals, and stocks of ethyl, completely denatured and specially denatured alcohol during the fiscal year ended with June 30, 1951, as compared with the fiscal year 1950.

Production

	Proof gallons	
	1951	1950
Ethyl	444,935,011	313,535,129
*Completely denatured	1,438,564	4,414,058
*Specially denatured	243,998,614	170,259,583

Withdrawals

	Wine gallons	
	1951	1950
†Ethyl, tax paid	42,824,251	40,564,876
tax free	493,699,293	327,655,152
*Completely denatured	1,456,480	4,397,961
*Specially denatured	237,192,954	176,804,418

Stocks (June 30)

	Gallons	
	1951	1950
†Ethyl	99,684,133	23,247,967
*Completely denatured	47,726	85,961
*Specially denatured	8,747,342	2,012,789

*Wine gallons. †Proof gallons.

Vanilla Prices Unchanged

Vanilla beans, both Bourbon and Mexican, remained unchanged last month at $3.25 for the former and $4.50 to $4.75 for Mexican cuts and $5.75 to $6.50 for whole beans. Offerings of the Bourbon beans out of France continued to be few and far between in October as they had been previously, strongly suggesting that dealers there were not over-anxious to sell. As for the spot market, supplies here were said to be entirely adequate for the time being, a factor which is holding the price down for the present time.

Balsam Copaiba Reduced

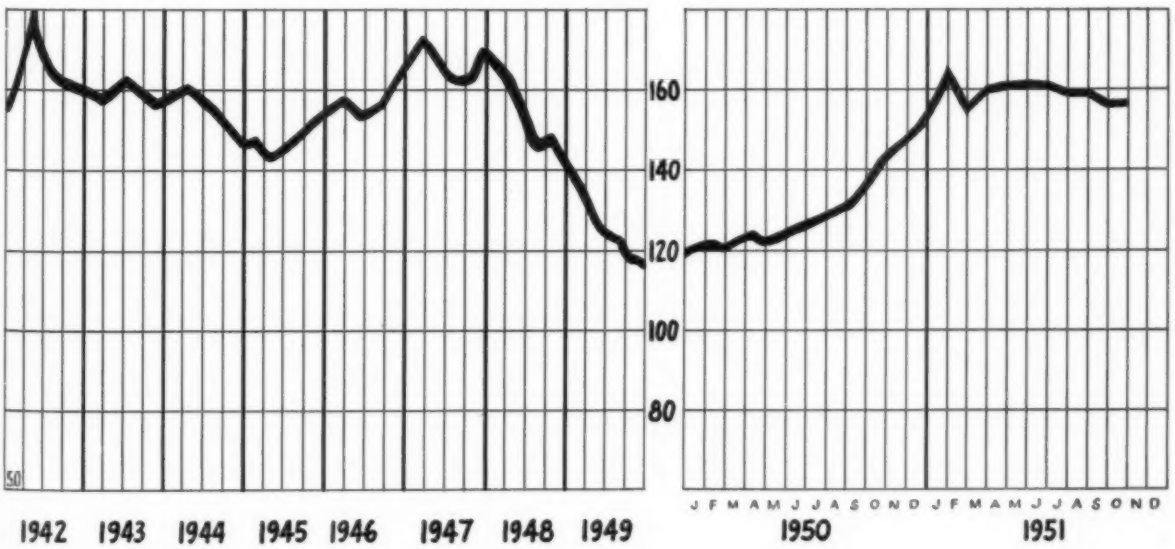
The balsam copaiba market eased off somewhat in October, with promise of further declines in the offing. It was quoted at $1.70 on spot. Reports indicate a large supply on hand at the origin, with reduced prices expected. In view of this picture, some consumers were delaying their purchases, pending the outcome of the price development.

Menthol Below $10

Menthol dropped below $10 in price last month for the first time in a long while, with the quotation from Brazil being $9.70 a pound, and that from China, $10.40. Although China and Japan offered the same price quotations to dealers in this country, nevertheless, there is little likelihood at the present time that these sources will have any material available. Should a truce be drawn up in Korea, however, and trade restrictions with Communist China relaxed, there will undoubtedly be a brisk resumption in the menthol trade from that quarter. The amount of menthol available from Japan is negligible at this time.

An excerpt from a Shanghai paper appearing in *Foreign Commerce Weekly* states "The annual world consumption of menthol averages 17,000 cases of 60 pounds each, of which around 5,000

50 Raw Materials—Weighted Price Index. 1926 = 100.



The price index of fifty commodities for October advanced from 155.8 to 156.1.

October Price Changes

UP	DOWN	
Anise Seed Star 15c	Anise Oil 15c	Cocoa Butter 7c
Clove Oil 75c	Balsam Copaiba Para 5c	Lemongrass Oil 50c
Spearmint Oil $0.40	Balsam Tolu 15c	Menthol 80c
	Buchu Leaves 5c	Criganum Oil 25c
	Cassia Oil, Redist 25c	Patchouli Oil $3.50
		Wormseed Oil 75c

cases used to come from Brazil, 2,000 cases from Japan, and about 10,000 cases from China.

During 1948, China produced 1,200 shih piculs of crude oil (1 shih picul equals 50 kilograms, or 110 pounds) and during 1949, about 5,000 shih piculs. In 1950, the 18 menthol factories of shanghai, where this industry is concentrated, collected about 23,000 shih piculs of crude oil, or 4.5 times the 1949 figure, and 19 times the 1948 output. The 1950 menthol production in Shanghai is estimated at 20 to 30 per cent above world consumption.

"During 1950, the menthol exports from China totalled only 12,000 cases, and heavy stocks must therefore have been accumulated in the country. The 1951 production of crude oil is estimated at 60,000 shih piculs, and that of menthol, 60,000 cases. In the Nantung area alone, the peppermint acreage increased from about 8,300 acres in 1950 to 100,000 acres in 1951.

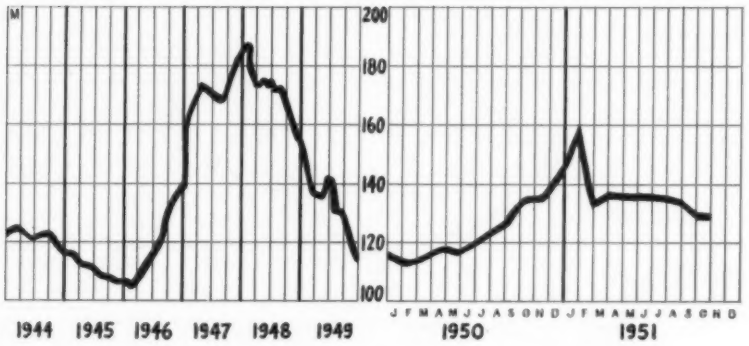
"In order to check overproduction, the Central authorities have not only forced down the prices of crude oil but also raised the export duty on menthol from 7.5 per cent to 55 per cent.

Market Unusually Sluggish

(*Continued from page 675*)

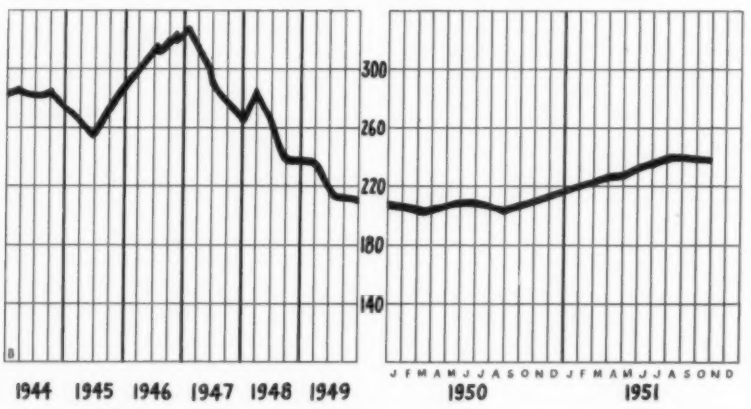
inventories. In many cases these consumers are still using up those supplies which they had bought in such profusion just after the outbreak of hostilities in 1950.

15 Medicinal Chemicals—Weighted Price Index. 1926 = 100.



The medicinal chemicals index fell slightly from 128.3 to 128.1. Menthol was lower.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index dropped a little from 239.5 to 239.2. Balsam tolu and buchu leaves were lower.

Nux Vomica Exports

For the first half of 1951, nux vomica exports from India exceeded those of the last six months of 1950, principally because of the increased demand from England, chief purchaser. The United States, second largest consumer, was also responsible, having bought appreciable quantities. The 1950-51 (November to April) production estimate, has been revised to 1,400 long tons, which is the same as the final estimate for 1949-50.

Carry-over stocks from the 1949-50 collection were believed to be 800 tons, which, added to the 1,500 tons collected in 1950-51, amounts to stocks of 2,500 tons. The combined stocks of the 1950-51 collections season left on hand are estimated at 800 long tons.

Total exports from the Madras and Calcutta consular districts for the first 6 months of 1951 compared with the first half of 1950 are: 1,186 tons, as compared with 366 tons. England imported 880 tons in 1951 and 238.5 tons the previous year, and the United States imported 259 tons and 125 tons during the respective periods.

Cocoa Butter Lower

Cocoa butter was down to 55c a pound, one of the reasons undoubtedly being that demand for the item was very slow at a time in the year when business is usually brisk.

Needless to say, there was more than enough material to meet all the demand. The trade expressed the belief that consumers were buying replacements of cocoa butter only to fill present requirements, rather than to build up any kind of backlog.

Anise Oil Down 15c

In spite of the very tight supply situation in both anise and cassia oils, these two items declined in price last month, the anise being quoted from $1.75 to $2.00, and the cassia, from $5.00 to $6.00. Toward the end of the month, there were signs that the prices would soon advance again. Oddly enough, there was no hurry at all on the part of consumers to buy replacements, although this time of the year is usually the period of greatest consumption. Even though the prospects for replacements from the origin were completely blocked off; still, this did not seem to offer any incentive to buy on spot.

Citronella Oil Quiet

In the face of a very small demand for the item, citronella oil was quoted as

low as $1.35 in some quarters last month, with other prices ranging as high as $2.40. Formosa suffered a series of very severe earthquakes during October, but there have been no reports up to the present time as to the resulting damage incurred on the island's natural products, including that of citronella oil.

Bergamot Oil Still Limited

With some quarters quoting bergamot prices close to $15 a pound, it seems entirely probable that last month's range extending betwen $11.50 and $12.50 will soon be obsolete. Reports were recently received that the Consortium in Italy had reserved a small allotment of oil for the United States, which is the first shipment since April of this year.

One source in the trade has indicated that many consumers are buying the artificial oil in preference to the natural material, in view of the high price of the latter.

Some spokesmen believe that bergamot oil will become less important in domestic use as a result of its present high price, its limited supply, and its restricted availability (from Italy only). In any event, those consumers who continue to use the oil, will pay extremely high prices for it from now on, judging from the past and present price trends.

Clove Oil Continues Scarce

Reflecting the very firm tone of the market, clove oil last month was selling for prices ranging from $4.00 through $4.25. Stocks in this country continue to grow smaller, and what replacements are available can be had only at high cost. The chance of replacement from the origin is slight in view of the reports describing the large losses of clove trees due to the disease "Sudden Death" which has been plaguing that industry for several years. There were a few dealers quoting prices in the vicinity of $3.50, but these probably will be much higher by the middle of November.

Lemongrass Oil Lower

Lemongrass oil was down to $3.50 a pound late in October, and at the same time, reports indicated that demand for the item was increasing.

According to a recent report issued by the Department of Commerce, India devoted between 30,000 and 35,000 acres to lemongrass during the year 1950-51, in comparison with an estimated 25,000 acres for 1949-50. Furthermore, estimates of production of the lemongrass oil for the season July to January are: 1949-50, 360 tons; 1950-51, 425 to 500 tons; and 1951-52, 600 to 700 tons.

Consumption of the oil by Indian soap manufacturers, the report continued, accounts for only 5 to 10 per cent of total production, and exports dispose of 90 to 95 per cent. The United States and the United Kingdom are the principal countries of destination in a field of 19 countries.

Exports from Southern Indian ports from April 1 to March 31 were: 1948-49, 760,902 pounds; 1949-50, 786,515 pounds; and 1950-51, 1,139,833 pounds.

Carry-over stocks of oil at the beginning of the 1950-51 season were placed at 50 tons, while, it was believed that this year's carryover would be very slight.

Lemon Oil Quiet

The lemon oil market remained quite stable last month, with the price remaining in the range between $5.00 and $5.50 for the California material. Some quarters indicated that the California oil was beginning to get stronger marketwise, but there does not seem to be much to worry about in this development, since demand for the item has fallen off greatly since the end of the summer.

As for the Italian oil, this was mostly quoted between $5.50 and $8.00, while a cheaper quality was as low as $4.00 on spot.

Lime Oil Suffers Setback

The price of lime oil remained in the vicinity of $8.00 during October, and appeared to be pretty certain of remaining at that level, or even going higher, judging from all the adverse conditions which have been affecting the lime trees. In both the West Indies and Mexico there was a much lower than usual yield this year. As a result, the available supply of oil will be scanty for quite some time, and the price will probably be proportionately high.

In Mexico, the trees have been hard hit by a plague caused by the black fly, which has caused great damage to the crops. Added to this plight, was the unusually cold weather early in 1951 accompanied by frosts which destroyed even more of the trees.

In West Indies, the recent hurricane also destroyed a large proportion of the crop, thus cutting off a potentially large source of the oil.

Some Orange Oil Reduced

Although the Exchange brand of California orange oil remained at $2.75, some independent producers were selling the oil at a much lower price level, enabling it to be sold on spot at $2.15. The Florida oil was still around $2.75 a pound, and while it was yet in a strong position, the situation was not anywhere as strong as it had been several months ago. Because demand for the oil has fallen off considerably now that winter is coming, the supply of the oil has been built up into a rather comfortable position. The outlook is much brighter today than it was in September.

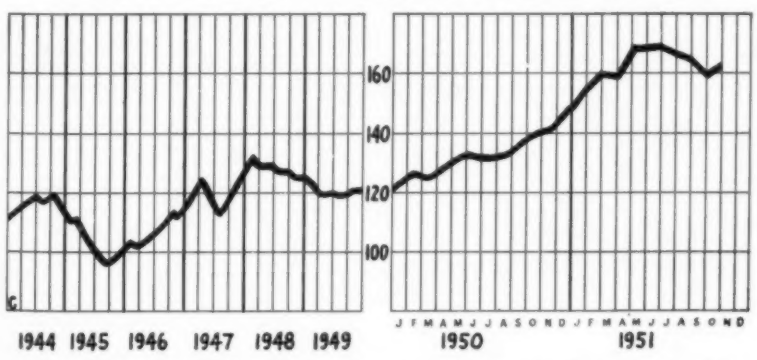
Spearmint Oil Highest in Year

At $7.30 a pound, spearmint oil was last month the highest in price it has been for well over a year. The belief is that there will be a shortage in this oil in the immediate future, until that time when the normal consumers have bought their requirments, and the demand has let up.

Quicksilver Unchanged

The price of quicksilver remained in the range between $218 and $220 a flask, according to the seller, as well as the quantity sold.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926 = 100.



The cosmetic raw materials index went up from 159.8 to 162.3. Balsam copaiba and Peru were higher; balsam tolu and menthol were lower.

(*Continued from page 663*)

availability and relatively low cost. As noted by Werner,[27] the enzymatic casein hydrolystate is completely adequate, but the acid hydrolysates must be fortified with tryptophan to replace that lost during production.

Werner also points out that mixtures of the essential amino acids in pure crystalline form are available. On the basis of his own studies, he prefers such a mixture to a casein hydrolysate. Others[28,29] have also commented on the superiority of mixtures of crystalline amino acids. Albrecht,[30] for example, while noting the higher cost of such mixtures, pointed out that the proportion of amino acids can be altered to fit the nutritional requirements and thus eliminate factors which might cause untoward symptoms in intravenous administration.

In the years since their introduction, much has been done to lessen the possibility of undesired reactions from parenterally administered protein precursors. Fatal reactions due to such injections are comparatively rare.[31] Elman[1] feels that a sufficiently large number of patients has been given protein preparations parenterally to warrant the statement that such a procedure is safe provided the usual precautions are taken for intravenous injections and particularly that the injections be given slowly enough. He[26] notes, however, that certain solutions containing only the essential animo acids plus glycine in crystalline form can be given at very much more rapid rates, without producing nausea and vomiting, than is the case with solutions of hydrolyzed protein.

Of interest in this connection is the report by Young and McGowan[8] that they have seen very few reactions following parenteral administration of casein hydrolysate. When present, such symptoms as nausea, vomiting, flushing and vasodilitation were attributable to too rapid infusion. Fever may occur occasionally, but this is usually due to pyrogens in unproperly prepared tubing. Rademaker has suggested that the use of disposable[32] tubing and sets will eliminate reactions due to such factors.

There is no evidence, say Bigham and his colleagues,[3] that amino acid mixtures given intravenously are handled differently by the body from protein given orally during the protein catabolism reaction which occurs after trauma, operation or infection. Indeed, from the studies of Parson and his coworkers,[33] it is apparent that the capacity of the body to metabolize a large load of infused amino acids is not measurably altered in certain disease states and following surgery.

However, as pointed out by Van Itallie[21] the problem of animo acid utilization is "inextricably entangled" with that of caloric balance. "For proper use of parenteral amino acids," says he, "there must at the same time be present an immediately available supply of calorigenic material. For maximal efficiency of amino acid utilization, the caloric and amino acid intake must be temporarily integrated."

This is further emphasized in Albrecht's[30] observation

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that little benefit to nitrogen balance is derived by amino acid infusion unless the daily caloric requirements of the individual are being adequately met. Glucose should be administered simultaneously with the protein preparation to meet the patient's basic caloric requirements and thus spare the nitrogen for the regeneration of blood and tissues rather than for the production of energy.

It is therefore common practice to administer glucose in combination with amino acids. Although other proportions may be used, commercially prepared stock solutions containing 5 per cent of amino acids and 5 per cent of glucose are extensively employed for parenteral feeding. More recently, parenteral solutions containing 5 or 7.5 per cent of alcohol as an additional ingredient have been made available. The work of Rice and his colleagues[34,35] indicates that a positive nitrogen balance can be maintained more easily when dextrose and amino acids are supplemented with alcohol.

Unfortunately, in some conditions, even such preparations cannot fully meet the caloric demands of the patient. Where prolonged intravenous feeding is needed, survival may depend directly on the calories that can be administered parenterally. Under such circumstances a large proportion of the injected amino acids is oxidized to supply energy and it is diverted from its intended purpose of tissue building and repair.[22]

It was with such consideration in mind that research workers set out to develop safe fat-containing preparations that would make intravenous nutrition adequate in calories and greatly enhance the possibilities for total parenteral alimentation. As pointed out by one authority,[21] there are good theoretical reasons for believing that fat emulsions would constitute the best possible source of intravenous calories. Aside from being calorically rich, fat particles do not exert an osmotic effect and are therefore not injurious to veins, even in high concentrations. Moreover, parenterally administered fat is not excreted through the kidneys or the gut, hence none is lost during or after administration.

Because of their high caloric content, fat emulsions make it possible to introduce considerable quantities of energy into relatively small volumes of infusion mixture. With a sufficiently high caloric intake, as provided by fat, the utilization of protein from parenteral or oral sources would be at a maximum level and the destruction of body proteins would be minimal. Therefore, say Stare and his associates,[3] it ought to be possible by such means to greatly improve the nutritional status of a severely emaciated child or adult, or to prevent such an emaciated condition from developing. Intravenous fat, they noted, may be of particular importance in combating the emaciation accompanying many types of cancer.

Over the years, many attempts were made to provide fat emulsions suitable for parenteral administration. Early efforts were not particularly promising but workers persisted in their attempts to develop products

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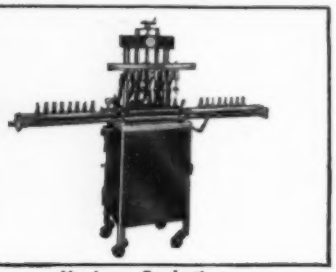

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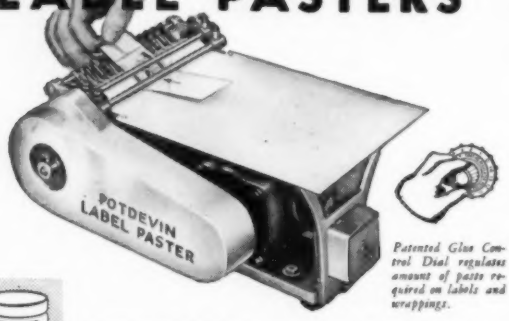

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that would be safe and would be utilized by the body. In 1945, McKibben and his colleagues[36] reported promising results in that their animals were able to survive continued intravenous fat administration. In subsequent studies, they[37] showed that the intravenous administration of a coconut oil emulsion to dogs receiving a diet inadequate in calories could prevent further weight loss and produce an increase in nitrogen retention.

Subsequent experiments,[38] including the use of tracer technics,[39,40] gave support to these findings. As remarked by Shafiroff and Mulholland,[41] with repeated infusions of fat emulsions evidence of utilization was demonstrated by increases in body weight, by restoration of nitrogen equilibirum and by surgical biopsies that were negative for fatty accumulation in the tissue.

The experimental evidence also showed that intravenously administered fat is quickly utilized. As explained by Geyer,[42] the rate at which the body tissue can absorb and oxidize fat has been measured in experimental animals by injecting a coconut oil emulsion containing radioactive trilaurin as a tracer. Radioactive carbon was found in the respiration three minutes after the completion of a ten-second injection. Fifty per cent of the fat was metabolized within three hours and almost all was metabolized in 24 hours. From this it is evident that fat oxidation is a fast process and not the slow process it has always been thought to be.

With data of this sort it was possible to proceed further and test the emulsions on humans. However, a good deal of work still remains to be done before the parenteral administration of fat emulsions becomes a fully estabished part of intravenous alimentation. Difficulties are still being encountered in producing satisfactory stabilization of the emulsion. In addition, certain batches of oil are pyrogenic, and an emulsion that has worked well for a time may start giving febrile reactions after several weeks despite the fact that cultures of the oil are sterile.[43]

Such febrile reactions are among the most important barriers to the wider clinical use of parenteral fat emulsions. In discussing the incidence of such reactions, which were seen most frequently with the more concentrated emulsions. Shafiroff and Mulholland[41] pointed out that moderate elevations in temperature have been explained on the basis of increased heat production associated with the combustion of fat. This type of temperature reaction, they note, is characterized as a thermal response and is differentiated from a true pyrogenic reaction associated with high fever, chills and leukopenia. A Thermal response to infusion of a fat emulsion has usually been identified with a moderate temperature elevation of about three degrees with a mild leukocytosis usually occurring in the early phases of the post-infusion period.

Following their experimental observations with carefully prepared, sterilized fat emulsions, Lambert, Miller and Frost[44] proposed the term "thermogenic" as being more appropriate than "pyrogenic" in describing the febrile response to intravenously administered fat.

In a consideration[45] of the factors responsible for the febrile response to intravenous fat, it was concluded that the problems to be overcome in the manufacture of fat emulsions are technical and not physiologic. Of interest in this connection is the finding by Lambert and his colleagues that incorporation of a surface-active agent into the emulsions eliminates the fever reaction and also inhibits the rate at which injected fat disappears from the blood.

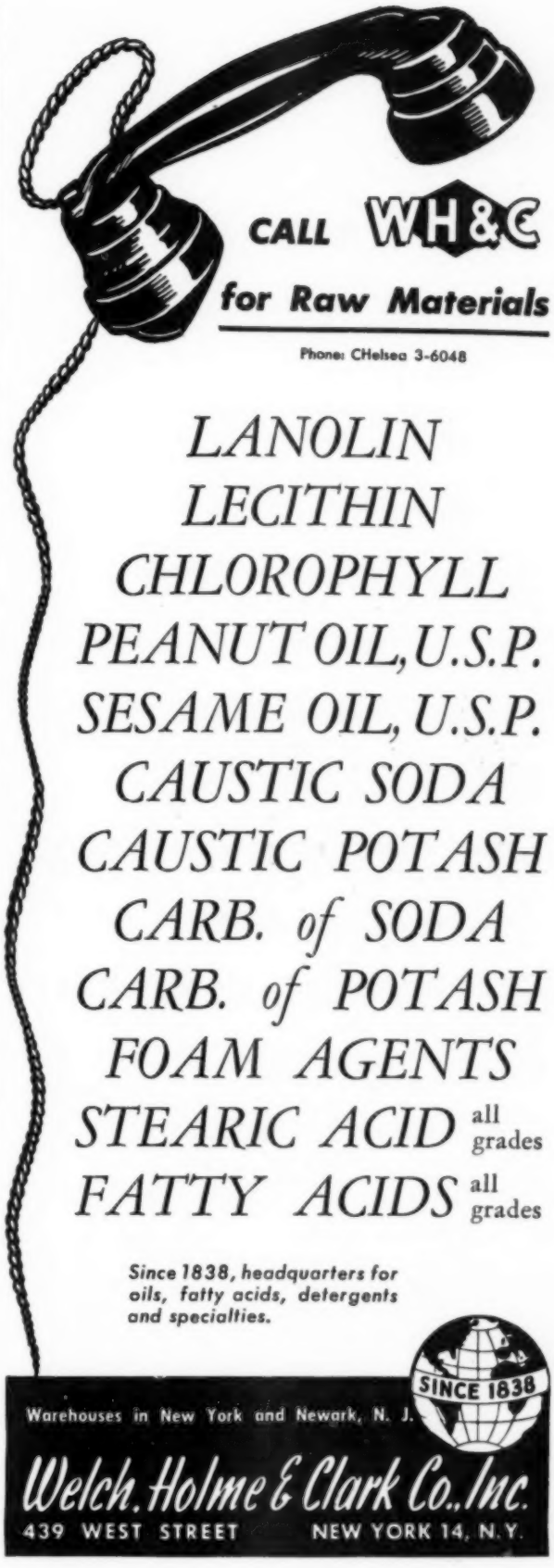
Werner[13] has pointed out that blockage of the capillaries may result from insufficiently fine or unstable emulsification of the fat dispersion, and there may be overloading of the reticuloendothelial system. This, of course, brings up the factor of particle size which, in turn, is concerned with the method of forming the fat dispersion and the kind of emulsion stabilizer used. While the present stabilizing systems are not ideal,[21] work is being done to improve both their physical and physiologic properties.[46]

Emulsions based on corn oil, coconut oil or butter oil have been prepared with various types of homogenizers and with sonation. To maintain the resulting fine dispersions, it is necessary to use emulsion stabilizers or emulsifiers. Such a stabilizer must maintain the status quo of the emulsified preparation from production, through sterilization to storage and use. It must be relatively nontoxic and the emulsions made with it must also be nontoxic.[2] Although a number of emulsifiers are available, only a few meet these requirements. Indeed, the type of stabilizer used for preparing the emulsions offers a convenient way of discussing the work of the various research groups.

Shafiroff and his colleagues,[47] for example, make use of a combined fat emulsion derived from the homogenization of coconut oil, protein hydrolysate, glucose solutions and gelatin. The gelatin, it was explained,[48] acts as a stabilizer, partially as a source of nutrient energy, and serves to maintain colloid osmotic pressure. In addition to extensive laboratory studies,[49,50] such emulsions were used in more than 150 human subjects.[41] Although other concentrations were tested, the largest and most satisfactory experience was obtained with preparations containing 10 per cent of fat.

After trying various combinations and mixtures, Meng and Freeman[51] were able to produce stable, fine emulsions using 0.5 per cent sorbitan monolaurate, 0.4 per cent purified soya phosphatides and 0.1 per cent sodium cholate as emulsifying agents homogenized with 10 per cent of refined butter oil by means of a high pressure homogenizer. The daily intravenous infusion of such emulsions to dogs fed a fat-free diet resulted in further gain in weight and a positive nitrogen balance similar to that of the control period. In tests on rabbits, Meng[52] found that the emulsion is nonantigenic and that it produced a slight gain in body weight.

In other laboratory studies, Meng and Early modified the emulsion by using olive oil instead of butter oil. They also included 5 per cent of glucose, plus vitamin A, vitamin D and alpha-tocopherol acetate. In the experiments, the olive oil emulsion was infused prior



to the administration of a solution containing protein hydrolystate, glucose and the required minerals and vitamins. Dogs fed exclusively by vein in this way, with 34 per cent of the caloric content of the diet provided by the fat emulsion, remained healthy, lively and in good spirits and most of them gained weight. Hence, it was included that the emulsion could be used clinically with confidence and with benefit in cases where complete parenteral alimentation is necessary.

In extensive studies at Harvard University, the investigators[2] paid particular attention to the type and amount of stabilizer used. They found that a combination of materials, consisting of purified soybean phosphatides plus polyglycerol esters gave the best results. During the last few years, 15 per cent emulsions of coconut oil in water containing dextrose for isotonicity and the combination stabilizer have been given to patients requiring parenteral calories.[54,55] In a recent report[43] covering more than 100 cases, it is stated that the effectiveness of the emulsion was shown by favorable clinical response, a maintenance or gain in weight, and a maintenance of positive nitrogen and potassium balance. In ten of the cases, subsequent necropsy showed that the fat emulsions had produced neither gross nor mircroscopic changes in the tissues.

Also indicative are the studies made by Lerner and his colleagues[56] in which an olive oil dispersion stabilized with glyceryl monostearate was added to 5 per cent dextrose solution to yield an emulsion containing 10 per cent of fat. High pressure homogenization yielded a stable, fine emulsion which was well tolerated by dogs when given intravenously. The fat was rapidly removed from the blood stream.

Before concluding, mention should be made of the role of the vitamins which are also frequently required when parenteral nutrition is indicated. Vitamin additions are especially important when parenteral feeding is carried on for several days.[3,57] As is well known, members of the B complex are associated with carbohydrate metabolism and are therefore important when glucose is given parenterally. The importance of vitamin C in surgical patients is also well established.[8] Preparations containing these water-soluble vitamins have long been available for intramuscular or intravenous injection.

More recently methods have been developed[58] by which the oil-soluble vitamins A, D and K have been solubilized in an aqueous base for parenteral use. With this method it is possible to prepare products which permit the simultaneous intramuscular administration of both the water-soluble and oil-soluble vitamins.[4] This, of course, facilitates the task of providing the vitamin supplement needed in total parenteral nutrition.

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Stearns in Australia

(*Continued from page 611*)

facturing department directly into the filling machines.

On the ground floor are the spacious and well-appointed general offices, bulk storage area, bond, powder manufacturing and filling, and well equipped mechanical and maintenance sections with provision for engineering, carpenters, and painters' workshops.

In the basement are the warehouse, print shop, and area for storage of heavy materials and bottles.

All finished stock in the warehouse is carried in alphabetical order on steel shelves. A center aisle layout allows for the efficient use of assembly trucks and each order is assembled by one operator and checked by another before it is packed. Invoices are sent with the orders on city and suburban deliveries, and the departments work to a schedule that all city and suburban orders are to be handled the same day as received, country orders on a two days' schedule.

A fully equipped printing department supplies all labels, cartons, outer folders and stationery required by all sections of the business.

In order to facilitate the handling and transport of stock, most goods are stored on platforms and are moved as required by mobile trucks. Electric stacking

machines are used to tier crates of bottles and similar items of stock.

Great consideration has been given to the color schemes employed in the plant, in order that the interior be given a hospital-like clean appearance, and a restful atmosphere for employees, to help prevent fatigue. This has been accomplished by a cream exterior, light blue and white in the manufacturing area, with white for laboratories and ampoule section, and a light green and white combination on the finishing floor. All equipment is painted white, with conveyors, cupboards etc. white with polished natural wood tops. A color scheme for service lines such as gas, vacuum etc. each in different colors, adds a contrast to the scheme. Both incandescent and fluorescent lighting has been used in the lighting of the different departments.

Practically all of the changeover, involving mechanical, carpentry and painting has been carried out by the company's own maintenance staff. Much of the equipment has been designed and produced in the company's own workshops.

The plant is equipped with its own diesel auxiliary generating set, capable of maintaining full plant operation in case of failure in the Council power supply.

A program for further plant modernization and for the addition of new and improved equipment has been approved, which will keep this plant one of the most modern in Australia. Overseas visitors say that this modern Sydney laboratory compares favorably with pharmaceutical plants in other parts of the world.

Color in Cosmetics

(Continued from page 603)

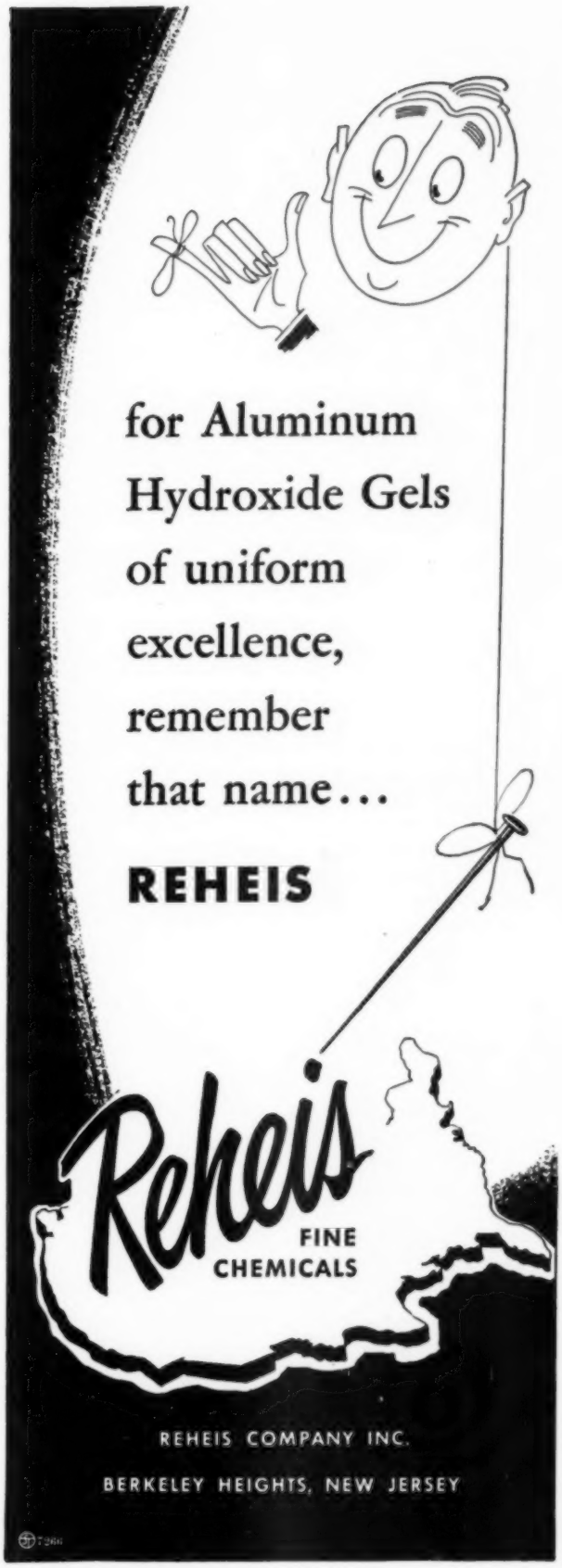
repeated washings. These brighteners—the best known of which are the umbelliferones—reflect ultra violet light as visible light and if this reflected light should be blue it would effectively neutralize any yellowish casts present. At least one manufacturer has added these substances to a shampoo and the possibilities are that others will follow. Certainly women strive for brighter hair, and by the use of these agencies they may be a step closer to their goals. As far as I know there is no toxicity factor to be considered with their use, but this should be checked. It seems to me that their introduction will mitigate against "dulling films" as much as any other agency.

Cosmetic Ingredient Inquiry

(Continued from page 599)

"Accidentally getting shampoo material into the eye is such a common experience of everyone that such occurrence is consistent with the conditions that are customary or usual in shampooing the hair.

"After an initial seizure in each instance, these manufacturers agreed voluntarily to remove their products from the market and to attempt to devise suitable substitutes. In neither instance had any pretesting whatever been conducted by the shampoo manufacturers,



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- Warm whiteness

PHYSICAL

- Fine texture
- Good oil absorption
- Superior adherence
- Good fluffiness
- Perfume fixative
- Easy to blend and tint

CHEMICAL

- Essentially neutral
- Amphoteric
- Exceptional purity
- Deodorizes by neutralizing perspiration

PHYSIOLOGICAL

- Mildly astringent
- Screens out sunburn rays
- Bacteriostatic action
- Soothing
- Non-toxic
- Protective

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notwithstanding the fact that data are generally available which would suggest the extreme likelihood that such ingredients would be dangerous. Again these ingredients, particularly the polyoxyethylene compound, are in the nature of a mixture rather than a chemical entity and the effects of one batch may not be safely forecast from tests made upon another unless the entire group of possible compounds is tested and found innocuous.

"These incidents represent some of the high lights of distribution of dangerous cosmetics without adequate pretesting safeguards that have shown up in the last decade. Other less extensive and dramatic instances of similar nature have occurred. Cosmetics by their very nature are chemical in character or represent a combination of chemicals. New cosmetics are the result of using new chemicals or well-known chemicals in different and new combinations. It seems absolutely essential in the interest of public safety that there be mandatory requirements for adequate pretesting and adequate manufacturing controls of products of this nature. It is abundantly evident that manufacturers generally do not undertake sufficient investigations of the possible injury hazards before placing such products on the market. Many large manufacturers do undertake appropriate tests. For example, the shampoo products of the nature just described were studied by some manufacturers and rejected, after which they were adopted and employed by other manufacturers in reckless ignorance or wanton disregard of the available facts.

"The foregoing may be of interest to the members of the Select Committee of the House as collateral to the subject matter of chemical additives in foods which they are considering."

The Resolution to investigate chemicals in cosmetics specifically authorizes the committee to conduct "an investigation and study of the nature, extent, and effect of the use of chemicals, compounds, and synthetics in the production, processing, preparation, and packaging of cosmetics to determine the effect of the use of such chemicals, compounds, and synthetics upon the health and welfare of the Nation."

Select Committee Chairman Delaney states "The Select Committee has received many complaints and anxious inquiries about synthetic ingredients in hair preparations and other cosmetics. These were supported by a report from the Food and Drug Administration on new developments in this field. As a result, the Committee quickly came to an agreement on the necessity for extending its probe to cover cosmetics."

In commenting on the report of the Food and Drug Administration, Chairman Delaney hinted that corrective legislation is necessary to require mandatory pretesting and manufacturing controls. Mr. Delaney said:

"A grave situation has been created by the limitations of the present law, which does not require that chemicals used in cosmetics be proven safe before the chemicalized product is put on the market." Therefore, it appears that the study of the Select Committee with respect to

cosmetic ingredients will be directed toward a law to amend the Food, Drug, and Cosmetic Act in this regard.

For those manufacturers who have not had experience with the "new drug" provisions of the Food, Drug, and Cosmetic Act, which provisions would doubtless be used as a pattern for the drafting of an amendment to establish similar controls over cosmetics, we give the following information:

The "new drug" sections of the law provide that no person shall ship any new drug in interstate commerce unless an application is filed with the Food and Drug Administration setting forth the following information:

1. Full reports of investigations which have been made to show whether or not such drug is safe for use;
2. A full list of the articles used as components of such drug;
3. A full statement of the composition of such drug;
4. A full description of the methods used in, and the facilities and controls used for the manufacture, processing, and packing of such drug;
5. Such samples of such drug and of the articles used as components thereof as the Administrator may require; and
6. Specimens of the labeling proposed to be used for such drug.

Following the submission of this evidence, the manufacturer is not allowed to ship the product until authorized by the Food and Drug Administration. Furthermore, a new drug may consist of a mixture of known ingredients which have not previously been used in the combination which the manufacturer has created.

Because of the fact that the Select Committee's studies on food chemicals are not expected to reach the hearing stage until early next year as the members of the committee will be conducting hearings in New York and on the West Coast during November and December, the investigation into cosmetics will not get under way until early next year at the soonest.

Supplies in Defense Economy

(Continued from page 613)

continue to receive at least as realistic consideration as we did during World War II.

Most of you are undoubtedly quite familiar with the various M Orders which affect our operations. Those of direct interest I list briefly: M-2 rubber, M-7 aluminum, M-8 tin, M-24 tin plate and terne plate, M-25 cans, M-26 closures, M-27 tubes, M-51 glass containers, M-75 steel shipping drums. In addition, we have direct interest in M-71, the Research Laboratory rating, M-4-A Construction, with related Orders CMP-6 and amendment No. 1 and CMP Regulation 5, covering MRO supplies, which superseded NPA Regulation 4. We, at Abbott, have made a number of direct requests for assistance or interpretations on some of these rulings, which I outline as follows: At one time rubber got pretty well snarled up with priorities that were interfering with deliveries on sterile closures and tubing. We contacted NPA under Order M-2 and eventually

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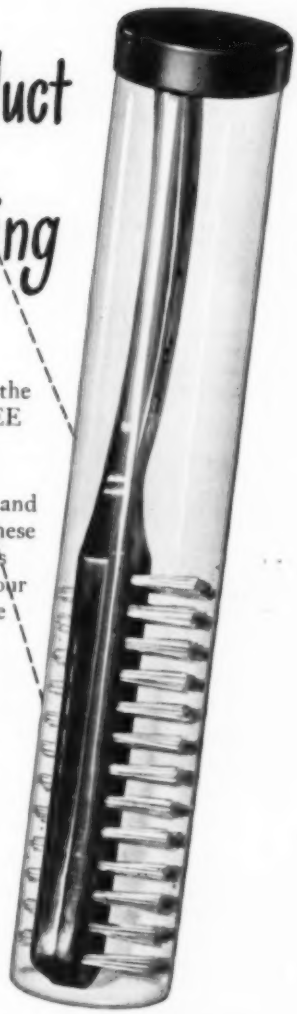

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After a hectic baseball season, in which the stars of both Big Leagues wound up with bigger bruises than batting averages, we turn to football, as the more gentle sport.

•

Maybe it's our continued love for the underdog. After all, most college football players earn less than professional baseball players. And some even have to do homework.

•

The West Point "cribbing" incident is said to have ruined the Army eleven. But to a feller who has watched several Army and Navy games, both teams play better for the nation's history books than the gamblers' hand books.

•

Our cynicism doesn't really mean that we approve a feller's busting his neck for dear old Siwash, or other academy hogwash. But our voice has gone hoarse as early as the First Quarter, urging mass murder by 22 big boys piled up over a puny pigskin.

•

The nation's favorite football character seems to be Coach Herman Hickman of Yale. A sports writer once said of the 300-lb. Hickman:

"As a player, Herman covered the field with the fleetest of them. Today, as a coach, he covers even more ground just by sitting down."

•

Hickman's greatest success, however, is his "Celebrity Time" appearance on TV with Conrad Nagel. More remarkable than his information on a variety of subjects is huge Herman's ability to snake-hip his way onto a 16-inch screen every week.

The athletically inclined Cosmetic Industry prefers football to all other sports. At least, it would, if it could be played two-handed on a commuter's train, with a deck of cards.

George Fiedler

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received informal assistance from the head of the division, which straightened the matter out for us.

We produce certain products in ointments which would only be qualified routinely under Order M-27 for a 7½ per cent tin-content tube. Some ingredients in these products are not compatible with the low tin content tubes, so we appealed and received permission to purchase and use pure tin tubes for a limited time.

While we do not use any large quantity of cans, we do use a few items falling in this class and have been able to work out with our supplier revised specifications which comply with Order M-25.

The limitation on inventories of closures under Order M-26 gave us some trouble for a time, but we worked on this matter and believe we have the situation in hand. This appears to be consistent with the operations of others in the industry.

We had a problem on a glass container which required contact with the administrator of Order M-51, Mr. Esselen. Frankly, we feel the interpretation of this order has been rather unduly strict. For instance, we wished to add a few letters in glass on one of our bottles, giving a trade name for a group of products. This would not have interfered with production, would not have added to the weight of the bottle nor its cost, but we were turned down on the basis that it was considered decoration and NPA was not allowing *any* revision of operating molds. In view of the fact that we could have gone to any other glass producer and had him duplicate the molds for the complete bottles as it stood, without any appeal to NPA, it does not appear consistent that a slight alteration which does not affect the weight of the bottle can be compared with the mold work that would be required by another supplier making a complete set of production molds.

At one time you may recall, there were many dire predictions that polyethylene was going to disappear completely as a civilian item. I believe almost every one of us in the drug industry has some important uses for polyethylene in various forms. We discussed the matter with G. H. Sollenburger, in charge of thermoplastic items in the Plastic Section, Chemicals Division of NPA. I believe Mr. Sollenburger has been very realistic in his handling of these items and, as you know, polyethylene has continued to be available to all of us for our most essential uses.

At one time, Pliofilm was very difficult for this industry to obtain, but ultimately the NPA decided that use for drugs and foods was most important and Pliofilm has been limited to these groups.

Many of these things fit in with my idea that decisions during the past twelve months have continually tended to be more realistic and justifiable as time went along. I cannot say that we are being treated unfairly in *any* division at the present time.

Some of you may have been concerned with construction problems, as Abbott has been, during the past several months. William E. O'Brien, Chief of the General Expansion Division, has been most fair and

realistic in our discussions with him. There have been delays that I feel were unnecessary and I think general controls were applied to the industry too strictly, but the bottleneck apparently has been broken very recently and we are now able to proceed. We, at Abbott, find it extremely difficult, as many of you also may find it, to place and plan equipment and construction installations for drugs six and eight months in advance of the time that they will be put in. It appears that we will have to follow this procedure if present controls continue and any of us plan to do any major building or installation. For instance, at present we must file in September 1951 for what we will need next March 1952, and will probably have to tell NPA in December what we will need through June of next year in structural steel, pipe, sheet and other controlled material items.

This, in brief, covers some of our experiences to date at Abbott, and I leave you with the one thought expressed before. We in the drug business are making items and products that will save and preserve lives. If there must be destruction and death in the world, then let us be doubly proud of the industry to which we belong and never let anyone forget that the business of war may be necessary but it will not continue long if the health and welfare of the people behind the guns are not maintained. Those of us particularly who make items for prescription dispensing cannot ever be said to be taking advantage of a "consumers' market" for *no one buys prescription drugs unless he has to!* For this reason, the essentiality of such products is automatically established and we can never condone for an instant the argument that there are at any time sufficient drugs and, therefore, the industry must do without the materials, equipment, and other tools with which we produce our products. This argument was advanced at one time in World War II, and the drastic consequences were such that it was never attempted again. I suggest that every one of us see to it that our Managements continue to emphasize to those in NPA and to our political representatives that we are at *all* times completely essential and we must continue in full operation to save lives and maintain stocks of absolutely essential drugs.

The Durham-Humphrey Law

(Continued from page 601)

"Amendment (2) was recommended because the associations felt the language it strikes out was of uncertain meaning and added nothing of importance to the bill. In any event, should a person place a statement on the label of a drug entirely safe for self-medication representing or implying that dispensing it without a prescription is prohibited by Federal law, that drug would be misbranded under the provision of law, section 502 (a), which forbids false or misleading labeling statements. Striking the language objected to does not relieve any manufacturer, regardless of the way in which he does business, from compliance with the requirement of section 502 (f) that all drugs

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Hydrastine
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Hyoscine
Hyoscyamine
Lobeline
Ouabain
Pelletierine
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Pilocarpine
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not limited to prescription sale must bear adequate warnings and adequate directions for use telling the purchasing public what the drug is to be used for and how it is to be taken to accomplish the beneficial effects it is intended to have.

"Amendment (3) was proposed to emphasize the fact that the responsibility for preparing adequate directions for use and appropriate warnings against misuse in the labeling of drugs that may be sold without a prescription is upou the manufacturer and not the retail druggist. It does nothing more than free the retail druggist of responsibility for supplementing the labeling of some manufacturers' drugs to give the public adequate directions for use and warnings against misuse. The druggist could rely in good faith upon the manufacturers' labeling for compliance with these requirements of the existing law. The amendment offers the druggist no protection against violations which arise if he sells a dangerous drug covered by paragraph (1) of the bill without meeting the prescription requirements."

In a statement released upon the signing of the new law, the Food and Drug Administratiion had the following to say:

"The bill has the primary object of protecting public health by making clear which drugs can safely be sold direct to the public and which can be dispensed only upon prescription. An amendment of the Federal Food, Drug, and Cosmetic Act, the new law sets up a definition of dangerous drugs which must be restricted to prescription sale. The intent of the bill, as developed by testimony at Congressional hearings, is to eliminate confusion in the labeling of drugs so that retail pharmacists will be able to tell immediately from the package whether or not a drug is one which requires a prescription. The new law restricts to prescription sale any drug which

> " 'because of its toxicity or other potentiality for harmful effect, or the method of its use, or the collateral measures necessary to its use, is not safe for use except under the supervision of a practitioner licensed by law to administer such drug.'

"This definition is interpreted by the Food and Drug Administration to include, as unsafe, drugs for serious diseases which cannot be treated effectively by the layman. An example of such a drug would be penicillin, which is non-toxic but which requires expert medical knowledge for effective use in treating such diseases as pneumonia.

"In testifying before the House Committee on Interstate and Foreign Commerce and the Health Subcommittee of the Senate Committee on Labor and Public Welfare, officials of the Food and Drug Administration cited tragic cases of drug addiction, injury and death resulting from loose practices in the sale and unsupervised use of dangerous drugs. The FDA officials testified that the legislation was needed to help curb serious abuses in sales of such drugs as barbiturates (sleeping pills); Benzedrine and Dexedrine to ward off fatigue; sulfa drugs and antibiotics for

venereal disease; thyroid for weight reducing; and male and female sex hormones for glandular disturbances. In the hands of the physician, such drugs are among the most valuable remedies known to man, but when administered by the layman they can cause serious injury or even death. It is contrary to the ethics of the pharmaceutical profession to dispense such drugs without prescriptions or to refill such prescriptions without the doctor's instruction. The new law will make it legally mandatory for all druggists to follow similar safe and ethical practices."

The law, as enacted, reads as follows:

AN ACT

To amend section 503(b) of the Federal Food, Drug, and Cosmetic Act

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That subsection (b) of section 503 of the Federal Food, Drug, and Cosmetic Act, as amended, is amended to read as follows:

"(b) (1) A drug intended for use by man which—

"(A) is a habit-forming drug to which section 502 (d) applies; or

"(B) because of its toxicity or other potentiality for harmful effect, or the method of its use, or the collateral measures necessary to its use, is not safe for use except under the supervision of a practitioner licensed by law to administer such drug; or

"(C) is limited by an effective application under section 505 to use under the professional supervision of a practitioner licensed by law to administer such drug, shall be dispensed only (i) upon a written prescription of a practitioner licensed by law to administer such drug, or (ii) upon an oral prescription of such practitioner which is reduced promptly to writing and filed by the pharmacist, or (iii) by refilling any such written or oral prescription if such refilling is authorized by the prescriber either in the original prescription or by oral order which is reduced promptly to writing and filed by the pharmacist. The act of dispensing a drug contrary to the provision of this paragraph shall be deemed to be an act which results in the drug being misbranded while held for sale.

"(2) Any drug dispensed by filling or refilling a written or oral prescription of a practitioner licensed by law to administer such drug shall be exempt from the requirments of section 502, except paragraphs (a), (i) (2) and (3), (k), and (1), and the packaging requirements of paragraphs (g) and (h), if the drug bears a label containing the name and address of the dispenser, the serial number and date of the prescription or of its filling, the name of the prescriber, and, if stated in the prescription, the name of the patient, and the directions for use and cautionary statements, if any, contained in such prescription. This exemption shall not apply to any drug dispensed in the course of the conduct of a business of dispensing drugs pursuant

(*Continued on page 693*)

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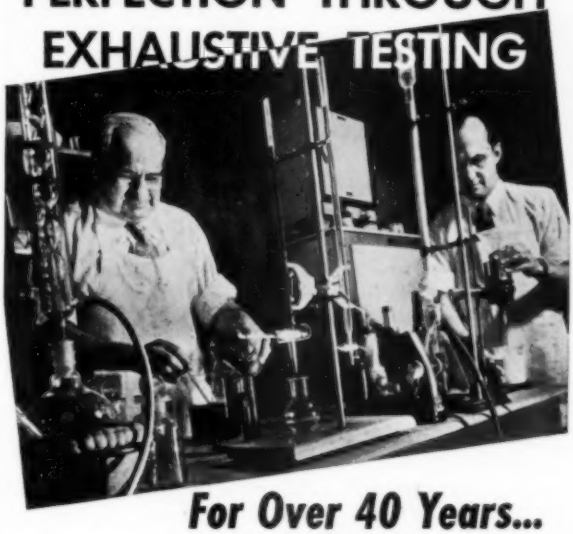

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Since entering the consulting field he has been a contributor to *Drug and Cosmetic Industry*.

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(*Continued from page 691*)

to diagnosis by mail, or to a drug dispensed in violation of paragraph (1) of this subsection.

"(3) The Administrator may by regulation remove drugs subject to section 502(d) and section 505 from the requirements of paragraph (1) of this subsection when such requirements are not necessary for the protection of the public health.

"(4) A drug which is subject to paragraph (1) of this subsection shall be deemed to be misbranded if at any time prior to dispensing its label fails to bear the statement 'Caution: Federal law prohibits dispensing without prescription.' A drug to which paragraph (1) of this subsection does not apply shall be deemed to be misbranded if at any time prior to dispensing its label bears the caution statement quoted in the preceding sentence.

"(5) Nothing in this subsection shall be construed to relieve any person from any requirement prescribed by or under authority of law with respect to drugs now included or which may hereafter be included within the classifications stated in section 3220 of the Internal Revenue Code (26 U. S. C. 3220), or to marihuana as defined in section 3238 (b) of the Internal Revenue Code (26 U. S. C. 3238 (b))."

Sec. 2. Subsection (c) of section 303 of the Federal Food, Drug, and Cosmetic Act, as amended, is amended by striking out the period at the end of clause (3) and inserting in lieu thereof a semicolon and the following: "or (4) for having violated section 301 (b), (c) or (k) by failure to comply with section 502 (f) in respect to an article received in interstate commerce to which neither section 503 (a) nor section 503 (b) (1) is applicable, if the delivery or proffered delivery was made in good faith and the labeling at the time thereof contained the same directions for use and warning statements as were contained in the labeling at the time of such receipt of such article."

Sec. 3. The provisions of this Act shall take effect six months after the date of its enactment.

Patent Thoughts and Trends

(*Continued from page 659*)

2,570,391-2—**American Cyanamid — Halogenated Substituted Pteridines.**

2,570,734—**Interchemical Corp.—Stable Histidine Ascorbate.**

2,571,238—**Merck—N - acylated - 2 - (4' - carboalkoxy-butyl)-3;4-diamino-thiophene.**

2,571,325—**Hoffmann-LaRoche—N — (Beta-Hydroxyethyl)-3, 4, 5-Trihydroxybenzoic acid amide.**

2,571,326—**Hoffmann - LaRoche — Aqueous solutions of Riboflavin.**

2,571,330—**American Cyanamid—Androstadienolones.**

2,571,849—**Kendall Co.—Antibacterial Composition. Tyrothricin and 5-nitro-2-furaldehyde semicarbazone.**

2,571,852—**Merck—Substituted Amino Analogs of Pantothenic Acid.**

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Guy C. Taylor, President

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Management Forum

(*Continued from page 649*)

New Filter Catalog

The Industrial Filter & Pump Manufacturing Company, 5900 Ogden Avenue, Chicago 50, Illinois, has issued a new eight-page catalog. The catalog goes into detail on the construction and operation of INDUSTRIAL'S pressure filters for solution clarification. It gives complete information on the various standard models, types, and sizes for both corrosive and non-corrosive solutions in chemical processes, fruit juices and fermented beverages, sugar solutions, water, etc.

A copy of this catalog may be had by addressing the Industrial Filter & Pump Manufacturing Company.

Whiz-Packer

The new WHIZ-PACKER Automatic Rotary and Conveyor Combination is a high speed packer for flat bottom containers in a broad range of sizes and shapes, having wide or narrow openings. It has been specially designed and built by Frazier & Son, 338 Cortlandt St., Belleville 9, N. J., to handle granulars and powders where vibration for a tight pack and the elimination of dust accumulation are major factors. Each model is custom built to fulfill specific needs of production line space, container and product physical characteristics.

Suitable vibration is furnished in the rotary section to permit products to fully settle and to provide fill at a high speed. Dust accumulation is controlled at the same time by the seating relationship of the container adaptor spouts to the container openings. This adaptor relationship to container (rotary feeding head) allows a group of containers to be filled and vibrated at the same time and to fully settle before going to the outgoing side of the conveyor.

This Whiz-Packer model is best suited for a one-container size or possibly a two-container size set-up where production requirements are great.

All machines are equipped with: scientifically designed agitation in the hopper, appropriate to the product; automatic self alignment of product dial plates and container dial plates for maximum efficiency; no can, no fill device; FRA-SURE Variable Speed Transmission with speed locking feature; and CUPTROL (for small weight adjustments while the machine is in operation).

Eriez Magnetic Trap

The products of the Mentholatum Company, Buffalo, N. Y., widely used for treatment of chapped lips and hands, and for easing nasal congestion, are viscous at room temperature but flow freely when hot. Experience showed this company that stray iron or steel in raw materials could cause serious damage to any of five pumps installed in a hot Mentholatum line, and also might cause some contamination of product. Mentholatum therefore installed a two-inch diameter stainless steel-faced Eriez Magnetic Trap in the lines to preclude these possibilities.

The trap is located directly after the first mixing tank, and protects the pumps and product by attracting both large and small pieces of tramp iron and holding them for removal.

The magnetic trap has proved highly efficient in protecting pumps, according to the Mentholatum Company. In addition, a substantial amount of fine iron is taken out of the product, thereby guaranteeing purity of the finished product.

Edward Hyde, Mentholatum Factory Manager, reports that the Eriez Magnetic Trap has so reduced maintenance and repair costs, as well as downtime, that operation without it would now be unthinkable.

Eriez Magnetic Traps are made by the Eriez Manufacturing Company, Erie, Pa.

The Retail Price Problem

(Continued from page 609)

of areas throughout the country and more similar indictments are expected to be requested. The activity comes because of the belief on the part of the Department of Justice that attempts are being made to circumvent the Schwegmann decision in ways which are illegal. Success on the part of the Government in this and similar suits would just about completely wreck any attempt to salvage fair trade from the devastating effects of the Schwegmann decision. So until this case is adjudicated, even the presently weakened state of fair trade enforcement in this country cannot be counted on to be permanent in nature.

Interesting to the adherents of fair trade is the suit of the Sunbeam Corporation of Chicago, makers of the famous Sunbeam Mixmaster, against R. H. Macy & Co., for $6,000,000 in triple damages. The main basis of the complaint stems from the price war following almost immediately on the heels of the Schwegmann decision in which the Mixmaster became a most prominent loss leader. The item, fair-traded at $46.50 was sold for $26.59, while the wholesale price was $29.70. The complaint contends that during this price war, Macy's monopolized 52.6 per cent of the New York sales of Mixmasters, while normally the store handled about 3.3 of the New York sales. Calling Macy's "the nation's largest discount house," Sunbeam complained that Macy's, advertising that "everything in its store cost 6 per cent less than elsewhere," sold at lower than wholesale cost "a reputable and known article of merchandise which someone else has created at great cost and effort." "A housewife," Sunbeam contends, "is led to believe by Macy's advertising in the newspapers and by 'sale' signs she sees as soon as she gets into Macy's stores that everything in said store must be just as wonderful a bargain as the Sunbeam Mixmaster at $26.59." The suit further charges that Macy's "conspired to restrain and monopolize trade by using their vast economic power to cut and fix prices of Sunbeam's products at a level where it has become unprofitable for their competitors to handle them."

(Continued on page 697)

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Industry's Books

(*Continued from page 661*)

Selective Toxicity, with special reference to Chemotherapy, by Adrien Albert, D.Sc., (Lond.), Ph.D. Medicine (Lond.), Professor of Medical Chemistry in the Australian National University, 228 pp., Illus., Pocket Size, John Wiley & Sons, Inc., New York, $1.75.

This series of monographs attempts to give brief but authoritative accounts of the present state of knowledge in various departments of Biochemistry, and to convey information which can be obtained only at the cost of considerable time and trouble by a person who is not engaged in that particular branch of science. Students and research workers in both chemistry and biology, as well as those no longer in contact with active scientific work, will find here a series of expositions by authors who are actively engaged in research on the subject of which they write.

Pharmacognosy, The Study of Natural Drug Substances and Certain Allied Products, by Robertson Pratt, Ph.D., Associate Professor of Pharmacognosy and Plant Physiology, University of California College of Pharmacy, and Heber W. Youngken, Jr., Ph.D., Associate Professor and Chairman for Pharmacognosy, University of Washington College of Pharmacy, 644 pp., Illus., J. B. Lippincott Co., Phila., $8.50.

In preparing this text the authors have attempted to present the basic principles necessary for a thorough understanding of pharmacognosy. The plan in preparing this book has been to present first the principles of formation (biosynthesis) of the constituents of plant and animal cells and the significance of the elaborated materials to the organisms wherein they are formed, and then to show the significance of certain compounds as drug substances. The emphasis throughout is on chemical, physical and physiologic principles and their integration and application. This is done in such a way that the student may acquire a basic understanding of the factors involved in the production and application of plant and animal drugs. The organization of the book is such that it can be used easily for courses concerned only with didactic instruction in pharmacognosy or for courses involving both didactic and laboratory work. For example, laboratory work to accompany the material in Part 2 might consist of practical exercises in chemical and physical methods for detecting, identifying and evaluating the various classes of constituents discussed in that part. Laboratory examination of crude drugs and consideration of their morphology, microscopy and chemistry would accompany Part 4. The material in Part 6 lends itself to associated laboratory experiments or demonstrations of the actions of insecticides, rodenticides, fungicides and plant growth regulators. The book is concerned primarily with principles and their application in aspects of pharmacognosy that are important for the practicing pharmacist.

Patent and Trade-Mark Practice Forms, by Albert L. Jacobs, B.S., LL.B., F.A.I.C., of the District of Columbia and U. S. Supreme Court Bars and Registered Patent Attorney, United States and Canada, 664 pp., Central Book Company, New York, $20.

Mr. Jacobs' professional experience makes him eminently suited to prepare and annotate a volume such as this. For many years he was head of the Patent Department of Sterling Drug, Inc., and he presently represents many large corporations and foundations. An active practitioner in both the patent and trade-mark fields, Mr. Jacobs specializes in Chemical, Medical and Pharmaceutical Matters. This book is the most exhaustive form-book, prepared especially for the patent and trade-mark bar, ever published. 305 forms, most of which have been tested through litigation and use, enable the user to carry out practically every action or procedure encountered in general patent and trade-mark practice. Each section of forms is preceded by textual analysis of the topic and a statement as to how the varying forms may be applied. The work is divided as follows: Part I—Patent Practice Forms—Chapter I—Forms For Filing Applications. Chapter II—Powers. Chapter III—Amendatory Forms. Chapter IV—Letters and Requests. Chapter V—Oaths and Affidavits. Chapter VI—Petitions to the Commissioner. Chapter VII—Appeal Forms. Chapter VIII—Interference Forms. Chapter IX—Disclaimers. Chapter X—Assignments. Chapter XI—Licenses and Agreements. Chapter XII—Miscellaneous Selected Forms. Part II—Trade-mark Practice Forms—Chapter XIII—Trade-mark Application Forms. Chapter XIV—Oppositions and Cancellations. Chapter XV—Appeal Forms. Chapter XVI—Assignments. Chapter XVII—International Registration. Chapter XVIII—Application Forms—State. The book is edge indexed for easy reference.

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(*Continued from page 695*)

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While this is the first recorded action which Sunbeam has taken as the result of the price war of earlier this year, and while several other manufacturers affected announced immediate action when the price war started, it is interesting for several reasons. It will be recalled that several manufacturers of branded merchandise immediately announced the stopping of all shipments to Macy's, although Macy's did obtain most of these goods from other sources and continued to advertise them at the cut prices. Particularly interesting is the statement that Macy could increase their percentage of Sunbeam sales from 3.3 per cent to 52.6 per cent. True enough the sales of the smaller stores and the discount houses throughout New York must have dropped to zero with Macy selling the item at less than wholesale cost. But how about the others like Gimbel's, Bloomingdale's, Abraham & Strauss in Brooklyn and others who fought it out with Macy's every step of the way? We admit that the crowds in Gimbel's—just a block away from Macy's—did not compare with the crowds in Macy's, but at the same time Gimbel's must have sold a lot of Mixmasters, and certainly they sold many more than they did at other times.

But of particular interest is the broad attack on Macy's policies, slogans, and general way of doing business which goes back as far as anyone can remember. They are the things that have made Macy's what it is. Not that we defend these methods of doing business, for we personally are loathe to do business with Macy's, but are these to be adjudicated as part of a suit brought by an individual manufacturer? These are broad questions which, if answered by the courts in the final disposition of this particular case, will do much to clarify the legality of pricing actions indulged in by retailers and other distributors. For since fair trade can no longer be expected to give the answers to the legality of pricing actions, the answers must come from litigation based on the anti-monopoly statutes of the nation.

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Industry's Books

(Continued from page 661)

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